

List of All Chemicals

P Petroselinum crispum (Apiaceae)

Common name(s)

Parsley

How used

Food

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

| Chemical | Plant Part | Low PPM | High PPM | StdDev | *Reference |
|---|-------------------|---------|----------|--------|--|
| (+)-LIMONENE | Seed Essent. Oil | -- | 21000.0 | -0.73 | * |
| (+)-M-MENTHA-1(6),8-DIENE | Fruit Essent. Oil | -- | 56400.0 | | * |
| 0-METHYLBENZYL-ACETATE | Leaf | -- | 0.36 | | * |
| 1,3,8-P-MENTHATRIENE | Seed | -- | 87.0 | | * |
| 1,3,8-P-MENTHATRIENE | Leaf | 63.0 | 1090.0 | | * |
| 1-ALLYL-2,3,4,5-TETRAMETHOXYBENZENE | Seed | 5.0 | 26600.0 | | * |
| 1-ALLYL-2,3,4,5-TETRAMETHOXYBENZENE | Seed Essent. Oil | -- | 8000.0 | | * |
| 1-ALLYL-2,3,4,5-TETRAMETHOXYBENZENE | Fruit Essent. Oil | -- | 380000.0 | | * |
| 1-METHYL-4-ISOPROPENYL-BENZENE | Leaf | 30.0 | 100.0 | 1.0 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| 1-METHYL-4-ISOPROPENYL-BENZENE | Plant | -- | -- | | * |
| 2,3,4,5-TETRAMETHOXYBENZENE | Seed | -- | -- | | * |
| 2,3-DIOXA-1-METHYL-4-(METHYL-ETHENYL)-BICYCLO-(2,2,2)-OCT-5-ENE | Plant | -- | -- | | * |
| 2,3-DIOXA-1-METHYL-4-(METHYL-ETHENYL)-BICYCLO-(2,2,2)-OCT-5-ENE | Leaf | -- | -- | | * |
| 2-(P-TOLUYL)-PROPAN-2-OL | Plant | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 2-ALPHA-TOLYL-PROPENE | Leaf | -- | -- | | * |
| 2-PENTYL-FURAN | Leaf | -- | -- | | * |
| 3,8-DIOXA-4-METHYL-7-(METHYL-ETHENYL)-TRICYCLO-(5,1,0)-OCTANE | Leaf | -- | -- | | * |
| 3-N-BUTYL-PHTHALIDE | Seed | -- | -- | | * |
| Activities (10) | | | | | |
| Antiinflammatory | | | | | |
| Antispasmodic | | | | | |
| Antistress | | | | | |
| Antitumor 60 mg/mus/6 days | | | | | |
| Hypocholesterolemic | | | | | |
| Hypoglycemic | | | | | |

| | |
|-----------------------|--|
| Candidicide 100 ppm | |
| Carcinogenic | |
| Fungicide 100 ppm | |
| Fungicide IC50=300 uM | |
| Immunosuppressant | Economic & Medicinal Plant Research, 6: 189. |
| Lymphocytogenic | Gawron, A., Gorski*, G., Glowniak**, K. 1989. Increased proliferation of phytohaemagglutinin (PHA)-stimulated human leucocytes after 8-methoxysoralen treatment. J. Pharm. Pharmacol. 42: 194-195, 1990. |
| Melaninogenic | Economic & Medicinal Plant Research, 6: 189. |
| Mitogenic 1 ug/mL | Gawron, A., Gorski*, G., Glowniak**, K. 1989. Increased proliferation of phytohaemagglutinin (PHA)-stimulated human leucocytes after 8-methoxysoralen treatment. J. Pharm. Pharmacol. 42: 194-195, 1990. |
| Mutagenic | |
| Pesticide | |
| Photodermatitogenic | |
| Phototoxic | |

| | | | | |
|---------------------------|-------------------------|----|----------|---|
| ALLYL-TETRAMETHOXYBENZENE | Fruit Essent. Oil | -- | 231000.0 | * |
|---------------------------|-------------------------|----|----------|---|

| | | | | | |
|---------------|------|----|------|------|---|
| ALPHA-CADINOL | Leaf | -- | 0.18 | -1.2 | * |
|---------------|------|----|------|------|---|

Activities (3)

Acaricide
Antimite
Pesticide

| | | | | | |
|--------------------|------------------------|----|--------|-------|---|
| ALPHA-COPAENE | Leaf | -- | 7.92 | -0.31 | * |
| ALPHA-CUBEBENE | Leaf | -- | 1.86 | -0.4 | * |
| ALPHA-ELEMENE | Leaf | -- | -- | | * |
| ALPHA-GURJUNENE | Leaf | -- | 4.92 | -0.58 | * |
| ALPHA-NEROLIDOL | Leaf | -- | 0.18 | | * |
| ALPHA-PHELLANDRENE | Seed Essent. Oil | -- | 1000.0 | -1.11 | * |

Activities (11)

Antibacterial Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands.
Antistaphylococcic Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands.
Dermal Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Emetic
FFlavor FEMA 10-130 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Insectiphile Pakistan Encyclopedia Planta Medica. 1986.
Irritant Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Laxative
Perfumery Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide

| | | | | | |
|--------------------|-------------------------|--------|--------|-------|---|
| ALPHA-PHELLANDRENE | Fruit Essent. Oil | 3000.0 | 7300.0 | -1.33 | * |
|--------------------|-------------------------|--------|--------|-------|---|

Activities (11)

Antibacterial Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands.
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Dermal Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Emetic
FFlavor FEMA 10-130 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Insectiphile Pakistan Encyclopedia Planta Medica. 1986.
Irritant Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Laxative

Pesticide

| | | | | | |
|-------------------------|---|-----|-------|-------|---|
| ALPHA-PHELLANDRENE | Seed | 0.6 | 210.0 | -0.87 | * |
| Activities (11) | | | | | |
| Antibacterial | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Antistaphylococcic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Dermal | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Emetic | | | | | |
| FLavor FEMA 10-130 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Fungicide | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| Insectiphile | Pakistan Encyclopedia Planta Medica. 1986. | | | | |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Laxative | | | | | |
| Perfumery | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Pesticide | | | | | |
| ALPHA-PHELLANDRENE | Leaf | -- | 4.3 | -0.31 | * |
| Activities (11) | | | | | |
| Antibacterial | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Antistaphylococcic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Dermal | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Emetic | | | | | |
| FLavor FEMA 10-130 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Fungicide | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| Insectiphile | Pakistan Encyclopedia Planta Medica. 1986. | | | | |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Laxative | | | | | |
| Perfumery | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Pesticide | | | | | |
| ALPHA-PINENE | Fruit | -- | -- | * | |
| Activities (28) | | | | | |
| Allelochemical | | | | | |
| Allergenic | | | | | |
| Anti acne | | | | | |
| Antibacterial | | | | | |
| Antifeedant | | | | | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. | | | | |
| Antiinflammatory | 500 mg/kg | | | | |
| Antipneumonic | | | | | |
| Antiseptic | | | | | |
| Antispasmodic | | | | | |
| Antistaphylococcic | | | | | |
| Antiviral | Economic & Medicinal Plant Research, 5: 195. | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |
| Coleoptophile | | | | | |
| Expectorant | Michael Castleman 1991. The Healing Herbs. Rodale Press, Emmaus, PA 436 pp. | | | | |
| FLavor FEMA 15-150 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Herbicide IC50=30 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. | | | | |
| Insecticide 0.82 uM/fly | | | | | |
| Insectifuge 50 ppm | | | | | |
| Insectiphile | J. Stored. Prod. Res., 22:141, 1986. | | | | |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| P450-2B1-Inhibitor | IC50=0.087 uM | | | | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Pesticide | | | | | |
| Sedative | Lawrence Review of Natural Products, Jun-90. | | | | |
| Spasmogenic | | | | | |

Transdermal

| | | | | | |
|--------------|-------------------------|--------|----------|------|---|
| ALPHA-PINENE | Fruit Essent. Oil | 2000.0 | 248500.0 | 2.44 | * |
|--------------|-------------------------|--------|----------|------|---|

Activities (28)

| | |
|----------------------------------|--|
| Allelochemical | |
| Allergenic | |
| Antiacne | |
| Antibacterial | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory 500 mg/kg | |
| Antipneumonic | |
| Antiseptic | |
| Antispasmodic | |
| Antistaphylococcic | |
| Antiviral | Economic & Medicinal Plant Research, 5: 195. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Coleoptophile | |
| Expectorant | Michael Castleman 1991. The Healing Herbs. Rodale Press, Emmaus, PA 436 pp. |
| FLavor FEMA 15-150 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide IC50=30 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insecticide 0.82 uM/fly | |
| Insectifuge 50 ppm | |
| Insectiphile | J. Stored. Prod. Res., 22:141, 1986. |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| P450-2B1-Inhibitor IC50=0.087 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Sedative | Lawrence Review of Natural Products, Jun-90. |
| Spasmogenic | |
| Tranquilizer | Lawrence Review of Natural Products, Jun-90. |
| Transdermal | |

| | | | | | |
|--------------|------|-----|---------|------|---|
| ALPHA-PINENE | Seed | 1.0 | 31080.0 | 2.89 | * |
|--------------|------|-----|---------|------|---|

Activities (28)

| | |
|----------------------------------|--|
| Allelochemical | |
| Allergenic | |
| Antiacne | |
| Antibacterial | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory 500 mg/kg | |
| Antipneumonic | |
| Antiseptic | |
| Antispasmodic | |
| Antistaphylococcic | |
| Antiviral | Economic & Medicinal Plant Research, 5: 195. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Coleoptophile | |
| Expectorant | Michael Castleman 1991. The Healing Herbs. Rodale Press, Emmaus, PA 436 pp. |
| FLavor FEMA 15-150 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide IC50=30 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insecticide 0.82 uM/fly | |
| Insectifuge 50 ppm | |
| Insectiphile | J. Stored. Prod. Res., 22:141, 1986. |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| P450-2B1-Inhibitor IC50=0.087 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Sedative | Lawrence Review of Natural Products, Jun-90. |

Tranquilizer
Transdermal

Lawrence Review of Natural Products, Jun-90.

ALPHA-PINENE

Leaf -- 5.0 -0.22 *

Activities (28)

| | |
|----------------------------------|--|
| Allelochemic | |
| Allergenic | |
| Antiacne | |
| Antibacterial | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory 500 mg/kg | |
| Antipneumonic | |
| Antiseptic | |
| Antispasmodic | |
| Antistaphylococcic | |
| Antiviral | Economic & Medicinal Plant Research, 5: 195. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Coleoptophile | |
| Expectorant | Michael Castleman 1991. The Healing Herbs. Rodale Press, Emmaus, PA 436 pp. |
| FLavor FEMA 15-150 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide IC50=30 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insecticide 0.82 uM/fly | |
| Insectifuge 50 ppm | |
| Insectiphile | J. Stored. Prod. Res., 22:141, 1986. |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| P450-2B1-Inhibitor IC50=0.087 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Sedative | Lawrence Review of Natural Products, Jun-90. |
| Spasmogenic | |
| Tranquilizer | Lawrence Review of Natural Products, Jun-90. |
| Transdermal | |

ALPHA-PINENE

Seed -- 444000.0 2.32 *
Essent.
Oil

Activities (28)

| | |
|----------------------------------|--|
| Allelochemic | |
| Allergenic | |
| Antiacne | |
| Antibacterial | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory 500 mg/kg | |
| Antipneumonic | |
| Antiseptic | |
| Antispasmodic | |
| Antistaphylococcic | |
| Antiviral | Economic & Medicinal Plant Research, 5: 195. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Coleoptophile | |
| Expectorant | Michael Castleman 1991. The Healing Herbs. Rodale Press, Emmaus, PA 436 pp. |
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| Herbicide IC50=30 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insecticide 0.82 uM/fly | |
| Insectifuge 50 ppm | |
| Insectiphile | J. Stored. Prod. Res., 22:141, 1986. |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| P450-2B1-Inhibitor IC50=0.087 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |

| | |
|--------------|--|
| Sedative | Lawrence Review of Natural Products, Jun-90. |
| Spasmogenic | |
| Tranquilizer | Lawrence Review of Natural Products, Jun-90. |
| Transdermal | |

| | | | | |
|--------------|------|----|----|---|
| ALPHA-PINENE | Root | -- | -- | * |
|--------------|------|----|----|---|

Activities (28)

| | |
|----------------------------------|--|
| Allelochemical | |
| Allergenic | |
| Antiacne | |
| Antibacterial | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory | 500 mg/kg |
| Antipneumonic | |
| Antiseptic | |
| Antispasmodic | |
| Antistaphylococcic | |
| Antiviral | Economic & Medicinal Plant Research, 5: 195. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Coleoptophile | |
| Expectorant | Michael Castleman 1991. The Healing Herbs. Rodale Press, Emmaus, PA 436 pp. |
| FLavor FEMA 15-150 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide IC50=30 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insecticide 0.82 uM/fly | |
| Insectifuge 50 ppm | |
| Insectiphile | J. Stored. Prod. Res., 22:141, 1986. |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| P450-2B1-Inhibitor IC50=0.087 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Sedative | Lawrence Review of Natural Products, Jun-90. |
| Spasmogenic | |
| Tranquilizer | Lawrence Review of Natural Products, Jun-90. |
| Transdermal | |

| | | | | | |
|-----------------|------|----|------|-------|---|
| ALPHA-TERPINENE | Leaf | -- | 0.24 | -0.31 | * |
|-----------------|------|----|------|-------|---|

Activities (13)

| | |
|---|---|
| ACE-Inhibitor 100 ug/ml (weak activity) | |
| Acaricide | |
| Aldose-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpene from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. |
| Antiacetylcholinesterase IC50=1.0 mM | |
| Antinitrosaminic | |
| Antispasmodic | |
| FLavor FEMA 1-40 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Insecticide 0.86 uM/fly | |
| Insectifuge | |
| P450-2B1-Inhibitor IC50=0.76 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Spasmogenic | |

| | | | | | |
|-----------------|---------|----|---------|------|---|
| ALPHA-TERPINENE | Fruit | -- | 18000.0 | 1.41 | * |
| | Essent. | | | | |
| | Oil | | | | |

Activities (13)

| | |
|---|---|
| ACE-Inhibitor 100 ug/ml (weak activity) | |
| Acaricide | |
| Aldose-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpene from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. |
| Antiacetylcholinesterase IC50=1.0 | |

Antioxidant 5 x quercetin
 Antioxidant IC34=10 uM
 Antiparkinsonian
 Antiradicular 5 x quercetin
 Antiretinotic
 Antirheumatic
 Antistroke
 Antitumor
 Antitumor (Bladder)
 Antitumor (Prostate)
 Antitumor (Stomach)
 Antitumor-Promoter
 Cancer-Preventive
 Cardioprotective
 Circulotonic
 Immunomodulator

| | | | | | |
|----------|-------|-----|------|-------|---|
| ALUMINUM | Plant | 2.0 | 22.0 | -0.71 | * |
|----------|-------|-----|------|-------|---|

Activities (5)

| | |
|-----------------|--|
| Antisilicotic | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Antivaginitic | Martindale's 28th |
| Candidicide | Martindale's 28th |
| Encephalopathic | Martindale's 29th |
| Pesticide | |

| | | | | |
|----------|----------------|----|----|---|
| APIGENIN | Tissue Culture | -- | -- | * |
|----------|----------------|----|----|---|

Activities (101)

| | |
|---------------------------------|--|
| 11B-HSD-Inhibitor | |
| AntiADD | |
| AntiHIV IC72=200 ug/ml | |
| AntiHIV IC50=143 ug/ml | |
| Antiaflatoxin IC50=9.52 uM | |
| Antiaflatoxin IC50=2.57 ppm | |
| Antiaggregant | |
| Antiaging | |
| Antiallergic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiangiogenic 4 uM | |
| Antiarrhythmic | |
| Antibacterial | Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, <i>Phytotherapy Research</i> , 3(4), 1989, 117-125. |
| Anticancer (Lung) | |
| Anticomplementary | |
| Antidermatitic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Antiestrogenic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiherpetic 20-54 ug/ml | |
| Antihistaminic IC50=10-35 uM | |
| Antiinflammatory #NAME? | |
| Antiinflammatory IC~65=1,000 uM | |
| Antileukemic 20-50 uM | |
| Antimelanomic 1-50 uM | |
| Antimetastatic 1-50 uM | |
| Antimutagenic ID50=10-40 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507. ACS, Washington 402 pp. |
| Antimutagenic ID50=0.55 ug/ml | |
| Antioxidant 1.5 x Vit. E | |
| Antioxidant IC28.5=62.5 ug/ml | |
| Antiperistaltic | |
| Antiproliferant 1-50 uM | |
| Antiproliferant IC50=155 uM | |
| Antispasmodic EC50=1-5 uM | |

| | |
|---|--|
| Antithyroid | Jim Duke's personal files. |
| Antitumor 1-50 uM | |
| Antitumor (Breast) 1-50 uM | |
| Antitumor (Lung) | |
| Antitumor (Skin) | |
| Antiviral 20-54 ug/ml | |
| Anxiolytic 10 mg/kg | |
| Apoptotic 12-60 uM | |
| Aromatase-Inhibitor IC50=1 uM/l | Journal of Medicinal Food 2: 235.1999. |
| Beta-Glucuronidase-Inhibitor IC50=~40 uM | |
| CNS-Depressant | |
| COX-1-Inhibitor IC50=1,000 uM | |
| COX-2-Inhibitor IC>65=1,000 uM | |
| COX-2-Inhibitor <40 uM | |
| COX-2-Inhibitor IC50=<15 uM | |
| Calcium-Antagonist? | Biochimica & Biophysica Acta, 1115: 69, 1991. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Choleretic | |
| Cyclooxygenase-Inhibitor | |
| Cytochrome-P450-1A1-Inhibitor | |
| Cytotoxic IC88=10 ug/ml | Planta Medica, 57: A113, 1991. |
| Cytotoxic 1-50 uM | |
| Cytotoxic IC50=9.5 uM | |
| DNA-Protective | |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Differentiator MIC=30 uM | |
| Differentiator IC40=40 uM | |
| Diuretic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Estrogenic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. |
| Estrogenic 16% genistein | |
| Estrogenic EC50=1 uM | |
| HIF-1alpha-Inhibitor | |
| Hyaluronidase-Inhibitor IC50+=50-250 uM | |
| Hypotensive | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| ICAM-1-Inhibitor | |
| IKK-Inhibitor | |
| Inotropic | |
| Interleukin-6-Inhibitor | |
| MAO-Inhibitor | |
| MAPK-Inhibitor | |
| Musculotropic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Mutagenic | |
| Myorelaxant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| NADH-Oxidase-Inhibitor | |
| NF-kB-Inhibitor | |
| NO-Synthase-Inhibitor 5-50 uM | |
| Nodulation-Signal | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Ornithine-Decarboxylase-Inhibitor | |
| P21-Inducer 10-70 uM | |
| PKC-Inhibitor IC50=10 uM | |
| PTK-Inhibitor 10-100 uM | |
| Pesticide | |
| Polyamine-Synthesis-Inhibitor | |
| Progesterational | |
| Protein-Kinase-C-Inhibitor IC50=10-40 uM | |
| Quinone-Reductase-Inducer 20 uM | Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216. |
| Radioprotective | |

| | |
|---|--|
| Sunscreen | |
| TNF-alpha-Inhibitor IC50=3.27 uM | |
| Topoisomerase-I-Inhibitor 223-237. | Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237. |
| Topoisomerase-II-Inhibitor 50 ug/ml | Azuma, Y., Onishi, Y., Sato, Y., Kizaki, H. 1995. Effects of Protein Tyrosine Kinase Inhibitors With Different Modes of Action on Topoisomerase Activity and Death of IL-2-Dependent CTLL-2-Cells. <i>J Biochemistry</i> , 118: 312-318. |
| Topoisomerase-II-Inhibitor IC28=18 uM | |
| Topoisomerase-II-Inhibitor IC45=180 uM | |
| Uterotrophic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. |
| VEGF-Inhibitor IC50=2-7 uM | |
| Vasodilator | |
| Xanthine-Oxidase-Inhibitor 0.36 uM | |
| iNOS-Inhibitor IC50=<15 uM | |

| | | | | |
|----------|-------|----|----|--|
| APIGENIN | Plant | -- | -- | Stitt, Paul. Why George should eat broccoli. |
|----------|-------|----|----|--|

Activities (101)

| | |
|------------------------------------|--|
| 11B-HSD-Inhibitor | |
| AntiADD | |
| AntiHIV IC72=200 ug/ml | |
| AntiHIV IC50=143 ug/ml | |
| Antiaflatoxin IC50=9.52 uM | |
| Antiaflatoxin IC50=2.57 ppm | |
| Antiaggregant | |
| Antiaging | |
| Antiallergic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiangiogenic 4 uM | |
| Antiarrhythmic | |
| Antibacterial | Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, <i>Phytotherapy Research</i> , 3(4), 1989, 117-125. |
| Anticancer (Lung) | |
| Anticomplementary | |
| Antidermatitic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Antiestrogenic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiherpetic 20-54 ug/ml | |
| Antihistaminic IC50=10-35 uM | |
| Antiinflammatory #NAME? | |
| Antiinflammatory IC~65=1,000 uM | |
| Antileukemic 20-50 uM | |
| Antimelanomic 1-50 uM | |
| Antimetastatic 1-50 uM | |
| Antimutagenic ID50=10- 40 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507. ACS, Washington 402 pp. |
| Antimutagenic ID50=0.55 ug/ml | |
| Antioxidant 1.5 x Vit. E | |
| Antioxidant IC28.5=62.5 ug/ml | |
| Antiperistaltic | |
| Antiproliferant 1-50 uM | |
| Antiproliferant IC50=155 uM | |
| Antispasmodic EC50=1-5 uM | |
| Antistress 10 mg/kg | |
| Antithyroid | Jim Duke's personal files. |
| Antitumor 1-50 uM | |
| Antitumor (Breast) 1-50 uM | |
| Antitumor (Lung) | |
| Antitumor (Skin) | |
| Antiviral 20-54 ug/ml | |
| Anxiolytic 10 mg/kg | |
| Apoptotic 12-60 uM | |
| Aromatase-Inhibitor IC65=1 uM/l | Journal of Medicinal Food 2: 235.1999. |

IC50= ~40 uM

CNS-Depressant

COX-1-Inhibitor
IC50=1,000 uM

COX-2-Inhibitor
IC>65=1,000 uM

COX-2-Inhibitor <40 uM

COX-2-Inhibitor IC50=<15 uM

Calcium-Antagonist? Biochimica & Biophysica Acta, 1115: 69, 1991.

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Choleretic

Cyclooxygenase-Inhibitor

Cytochrome-P450-1A1-Inhibitor

Cytotoxic IC88=10 ug/ml Planta Medica, 57: A113, 1991.

Cytotoxic 1-50 uM

Cytotoxic IC50=9.5 uM

DNA-Protective

Deiodinase-Inhibitor Jim Duke's personal files.

Differentiator MIC=30 uM

Differentiator IC40=40 uM

Diuretic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Estrogenic EC50=0.1-25 uM/l Journal of Medicinal Food 2: 227.1999.

Estrogenic 16% genistein

Estrogenic EC50=1 uM

HIF-1alpha-Inhibitor

Hyaluronidase-Inhibitor
IC50+=50-250 uM

Hypotensive Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

ICAM-1-Inhibitor

IKK-Inhibitor

Inotropic

Interleukin-6-Inhibitor

MAO-Inhibitor

MAPK-Inhibitor

Musculotropic Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.

Mutagenic

Myorelaxant Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

NADH-Oxidase-Inhibitor

NF-kB-Inhibitor

NO-Synthase-Inhibitor 5-50 uM

Nodulation-Signal Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Ornithine-Decarboxylase-Inhibitor

P21-Inducer 10-70 uM

PKC-Inhibitor IC50=10 uM

PTK-Inhibitor 10-100 uM

Pesticide

Polyamine-Synthesis-Inhibitor

Progesterone

Protein-Kinase-C-Inhibitor
IC50=10-40 uM

Quinone-Reductase-Inducer 20 uM Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. *Cancer Lett.*, 120 (2): 213-216.

Radioprotective

Sedative 30-100 mg/kg

Sunscreen

TNF-alpha-Inhibitor

IC50=3.27 uM Santi, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. *Toxicol Ind Health*, 14: 223-237.

Topoisomerase-II-Inhibitor 50 ug/ml Azuma, Y., Onishi, Y., Sato, Y., Kizaki, H. 1995. Effects of Protein Tyrosine Kinase Inhibitors With Different Modes of Action on Topoisomerase Activity and Death of IL-2-Dependent CTLL-2-Cells. *J Biochemistry*, 118: 312-318.

Topoisomerase-II-Inhibitor
IC28=18 uM

Topoisomerase-II-Inhibitor
IC45=180 uM

Uterotrophic EC50=0.1-25 uM/l Journal of Medicinal Food 2: 227.1999.

| | | | | |
|--------------------------------------|--|----|----|--|
| Vasodilator | | | | |
| Xanthine-Oxidase-Inhibitor | | | | |
| 0.36 uM | | | | |
| iNOS-Inhibitor IC50=<15 uM | | | | |
| APIGENIN-7-O-BETA-D-GLUCOSIDE | Plant | -- | -- | * |
| APIGENIN-7-APIOSYGLUCOSIDE | Fruit | -- | -- | * |
| APIGENIN-7-APIOSYGLUCOSIDE | Seed | -- | -- | * |
| APIGENIN-7-GLUCOAPIOSIDE | Plant | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| APIGENIN-7-O-BETA-D-GLUCOSIDE | Plant | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| APIIN | Plant | -- | -- | * |
| Activities (4) | | | | |
| Aldose-Reductase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Antiarrhythmic | | | | |
| Antibradykinic | Economic & Medicinal Plant Research, 5: 366. | | | |
| Antispasmodic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. | | | |
| APIIN | Shoot | -- | -- | * |
| Activities (4) | | | | |
| Aldose-Reductase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Antiarrhythmic | | | | |
| Antibradykinic | Economic & Medicinal Plant Research, 5: 366. | | | |
| Antispasmodic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. | | | |
| APIIN | Leaf | -- | -- | * |
| Activities (4) | | | | |
| Aldose-Reductase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Antiarrhythmic | | | | |
| Antibradykinic | Economic & Medicinal Plant Research, 5: 366. | | | |
| Antispasmodic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. | | | |
| APIIN | Seed | -- | -- | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| Activities (4) | | | | |
| Aldose-Reductase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Antiarrhythmic | | | | |
| Antibradykinic | Economic & Medicinal Plant Research, 5: 366. | | | |
| Antispasmodic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. | | | |
| APIIN | Tissue Culture | -- | -- | * |
| Activities (4) | | | | |
| Aldose-Reductase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Antiarrhythmic | | | | |
| Antibradykinic | Economic & Medicinal Plant Research, 5: 366. | | | |
| Antispasmodic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. | | | |
| APIOL | Shoot | -- | -- | * |
| Activities (2) | | | | |
| Calcium-Antagonist IC50=30 uM gpg | | | | |
| Calcium-Antagonist IC50=29.2 uM gpg | | | | |
| APIOL | Rhizome | -- | -- | * |

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|------------------------|----|----------|---|
| APIOL | Seed Essent. Oil | -- | 576000.0 | * |
|-------|------------------------|----|----------|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|------|----|---------|---|
| APIOL | Seed | -- | 34500.0 | * |
|-------|------|----|---------|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|-------|----|---------|---|
| APIOL | Fruit | -- | 36580.0 | * |
|-------|-------|----|---------|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|------------------------|----|----|---|
| APIOL | Root Essent. Oil | -- | -- | * |
|-------|------------------------|----|----|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|------|----|----|---|
| APIOL | Root | -- | -- | * |
|-------|------|----|----|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|------------------|----|----|---|
| APIOL | Essential Oil | -- | -- | * |
|-------|------------------|----|----|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|------|----|----|---|
| APIOL | Leaf | -- | -- | * |
|-------|------|----|----|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|------------------------|----|----|---|
| APIOL | Leaf Essent. Oil | -- | -- | * |
|-------|------------------------|----|----|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | |
|-------|-------------------------|----------|----------|---|
| APIOL | Fruit Essent. Oil | 180000.0 | 497300.0 | * |
|-------|-------------------------|----------|----------|---|

Activities (2)

Calcium-Antagonist IC₅₀=30 uM gpg
Calcium-Antagonist IC₅₀=29.2 uM gpg

| | | | | | |
|--------|------|---------|---------|-----|---|
| APIOLE | Seed | 19650.0 | 36580.0 | 1.0 | * |
|--------|------|---------|---------|-----|---|

Activities (20)

| | |
|--|---|
| Antioxidant 100 ppm | |
| Antiparkinsonian 1 g 2-3x/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiparotitic | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiperiodontitic 1 g 2x/day | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antipneumonic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipodriac | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipoliomyelitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipyretic | Economic & Medicinal Plant Research, 6: 189. |
| Antiradicular | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and resvrese insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antiretinotic | |
| Antirheumatic | |
| Antirhininic 1,000 mg 3x/day | |
| Antiscorbutic 10 mg/man/day | Martindale's 28th |
| Antiseptic MIC=3.3-217 mg/ml | Martindale's 28th |
| Antiseptic 4-8 g/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and resvrese insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antishingles | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antispasmodic 500-5,000 mg/day | |
| Antistress 500-1,000 mg | |
| Antisyndrome-X 1-4 g/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and resvrese insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antitumor (Gastric) | |
| Antitumor (Lung) | |
| Antiulcer | |
| Antiviral 1-5 g/day | |
| Apoptotic 1-10 mM | |
| Asthma-preventive 1,000 mg/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Beta-Adrenergic Receptor Blocker | |
| Beta-Glucuronidase-Inhibitor 1.5 g/day/man | |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Cold-preventive 1-2 g/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Collagenic | |
| Detoxicant | |
| Diuretic 700 mg/man/orl | |
| Fistula-Preventive | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Hypocholesterolemic 300-1,000 mg/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Hypoglycemic | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and resvrese insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Hypotensive 1,000 mg/man/day | |
| Immunomodulator | |
| Immunostimulant | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and resvrese insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Interferonogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Lithogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Mucolytic 1 g/woman/day | Martindale's 28th |
| Pesticide | |
| Uricosuric 4 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Urinary-Acidulant | Martindale's 29th |
| Vasodilator | |
| Vulnerary | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

| ASCORBIC-ACID | Leaf | -- | -- | * |
|------------------------------|---|----|----|---|
| Activities (112) | | | | |
| Acidulant FEMA 6,000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | |
| Aldose-Reductase-Inhibitor | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and resvrese insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 | | | |
| Analgesic 5-10 g/day | | | | |
| Angiotensin-Receptor-Blocker | | | | |
| AntiAGE 2,000 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and resvrese insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 | | | |
| AntiCFS 500-1,000 mg | | | | |
| AntiCTS 1,000 mg 3x/day | | | | |

| | |
|---|--|
| AntiLyme 500-2,000 mg | |
| AntiRaynaud's 500 mg 1-2x/day | |
| Antiaggregant | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antiaging 400 mg/day | |
| Antiallergic | |
| Antialzheimeran 2,000-6,000 mg/day | |
| Antiarthritic 0.2-1 g/day | |
| Antiasthmatic 1,000 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiatherosclerotic | |
| Antibacterial | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anticataract 350 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticataract 400 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Anticataract 1 g 3x/day | |
| Anticervicaldysplastic 1,000-2,000 mg/day | |
| Anticlimacteric 500-5,000 mg/day | |
| Anticold 1-2 g/man/day | |
| Antidecubitic 500 mg/man/2x/day | Martindale's 28th |
| Antidementia | |
| Antidepressant 2,000 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antidiabetic | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antidote (Aluminum) | Economic & Medicinal Plant Research, 6: 189. |
| Antidote (Cadmium) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidote (Lead) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidote (Paraquat) | Martindale's 28th |
| Antieczemic 3.5-5 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiedemic 1 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiencephalitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antienzymetrotic 2,000 mg/day | |
| Antifatigue 500-1,000 mg | |
| Antifibrotic 1,000-2,000 mg | |
| Antigallstone 1,000-3,000 mg/day | |
| Antigastritic | |
| Antigingivitic | |
| Antiglaucomic 2 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antihangover 1,000 mg | |
| Antihemorrhagic 1 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihepatitic 2-6 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihepatotoxic | Economic & Medicinal Plant Research, 6: 189. |
| Antiperitic 1-5 g/day | |
| Antihistaminic 2 g/day orl man | |
| Antihypertensive | |
| Antiinfertility 1 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiinflammatory | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antilepric 1.5 g/man/day | Martindale's 28th |
| Antilithic 1,000-3,000 mg/day | |
| Antimaculitic | |
| Antimeasles | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antimenopausal 500-5,000 mg/day | |
| Antimigraine | Martindale's 29th |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antineuramidase | |
| Antinitrosic 1 g/man/day | Martindale's 28th |
| Antiobesity 1 g 3x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiorchitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antoste oarthritis 1 g 2x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antosteoporotic 500 mg/day | |
| Antioxidant 100 ppm | |
| Antiparkinsonian 1 g 2-3x/day | |
| Antiparotitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiperiodontic 1 g 2x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |

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|--|--|
| Antipodriac | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipoliomyelic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipyretic | Economic & Medicinal Plant Research, 6: 189. |
| Antiradicular | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antiretinotic | |
| Antirheumatic | |
| Antirhinitic 1,000 mg 3x/day | |
| Antiscorbutic 10 mg/man/day | Martindale's 28th |
| Antiseptic MIC=3.3-217 mg/ml | Martindale's 28th |
| Antiseptic 4-8 g/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antishingles | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antispasmodic 500-5,000 mg/day | |
| Antistress 500-1,000 mg | |
| Antisyndrome-X 1-4 g/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antitumor (Gastric) | |
| Antitumor (Lung) | |
| Antiulcer | |
| Antiviral 1-5 g/day | |
| Apoptotic 1-10 mM | |
| Asthma-preventive 1,000 mg/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Beta-Adrenergic Receptor Blocker | |
| Beta-Glucuronidase-Inhibitor 1.5 g/day/man | |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Cold-preventive 1-2 g/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Collagenic | |
| Detoxicant | |
| Diuretic 700 mg/man/orl | |
| Fistula-Preventive | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Hypocholesterolemic 300-1,000 mg/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Hypoglycemic | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Hypotensive 1,000 mg/man/day | |
| Immunomodulator | |
| Immunostimulant | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Interferonogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Lithogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Mucolytic 1 g/woman/day | Martindale's 28th |
| Pesticide | |
| Uricosuric 4 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Urinary-Acidulant | Martindale's 29th |
| Vasodilator | |
| Vulnerary | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

ASCORBIC-ACID

| | | | | | |
|---------------|-------|----|--------|-------|---|
| ASCORBIC-ACID | Fruit | -- | 1220.0 | -0.21 | * |
|---------------|-------|----|--------|-------|---|

Activities (112)

| | |
|-----------------------------------|--|
| Acidulant FEMA 6,000 | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry |
| Aldose-Reductase-Inhibitor | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Analgesic 5-10 g/day | |
| Angiotensin-Receptor-Blocker | |
| AntiAGE 2,000 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| AntiCFS 500-1,000 mg | |
| AntiCTS 1,000 mg 3x/day | |
| AntiCrohn's 50-100 mg/day/orl/man | Martindale's 29th |
| AntiLyme 500-2,000 mg | |
| AntiRaynaud's 500 mg 1-2x/day | |
| Antiaggregant | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |

| | |
|--|--|
| Antirheumatic | |
| Antirhinitic 1,000 mg 3x/day | |
| Antiscorbutic 10 mg/man/day | Martindale's 28th |
| Antiseptic MIC=3.3-217 mg/ml | Martindale's 28th |
| Antiseptic 4-8 g/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antishingles | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antispasmodic 500-5,000 mg/day | |
| Antistress 500-1,000 mg | |
| Antisyndrome-X 1-4 g/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antitumor (Gastric) | |
| Antitumor (Lung) | |
| Antiulcer | |
| Antiviral 1-5 g/day | |
| Apoptotic 1-10 mM | |
| Asthma-preventive 1,000 mg/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Beta-Adrenergic Receptor Blocker | |
| Beta-Glucuronidase-Inhibitor 1.5 g/day/man | |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Cold-preventive 1-2 g/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Collagenic | |
| Detoxicant | |
| Diuretic 700 mg/man/orl | |
| Fistula-Preventive | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Hypocholesterolemic 300-1,000 mg/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Hypoglycemic | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Hypotensive 1,000 mg/man/day | |
| Immunomodulator | |
| Immunostimulant | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Interferonogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Lithogenic | |
| Mucolytic 1 g/woman/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Pesticide | Martindale's 28th |
| Uricosuric 4 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Urinary-Acidulant | Martindale's 29th |
| Vasodilator | |
| Vulnerary | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

ASCORBIC-ACID

Shoot -- -- *

Activities (112)

| | |
|------------------------------------|--|
| Acidulant FEMA 6,000 | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry |
| Aldose-Reductase-Inhibitor | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Analgesic 5-10 g/day | |
| Angiotensin-Receptor-Blocker | |
| AntiAGE 2,000 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| AntiCFS 500-1,000 mg | |
| AntiCTS 1,000 mg 3x/day | |
| AntiCrohn's 50-100 mg/day/orl/man | Martindale's 29th |
| AntiLyme 500-2,000 mg | |
| AntiRaynaud's 500 mg 1-2x/day | |
| Antiaggregant | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antiaging 400 mg/day | |
| Antiallergic | |
| Antialzheimeran 2,000-6,000 mg/day | |
| Antiarthritic 0.2-1 g/day | |
| Antiasthmatic 1,000 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |

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|---|--|
| Antibacterial | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anticataract 350 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticataract 400 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Anticataract 1 g 3x/day | |
| Anticervicaldysplastic 1,000-2,000 mg/day | |
| Anticlimacteric 500-5,000 mg/day | |
| Anticold 1-2 g/man/day | |
| Antidecubitic 500 mg/man/2x/day | Martindale's 28th |
| Antidementia | |
| Antidepressant 2,000 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antidiabetic | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antidote (Aluminum) | Economic & Medicinal Plant Research, 6: 189. |
| Antidote (Cadmium) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidote (Lead) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidote (Paraquat) | Martindale's 28th |
| Antieczemic 3.5-5 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiedemic 1 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiencephalitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiendometriotic 2,000 mg/day | |
| Antifatigue 500-1,000 mg | |
| Antifibrotic 1,000-2,000 mg | |
| Antigallstone 1,000-3,000 mg/day | |
| Antigastritic | |
| Antigingivitic | |
| Antiglaucomic 2 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antihangover 1,000 mg | |
| Antihemorrhagic 1 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihepatitic 2-6 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihepatotoxic | Economic & Medicinal Plant Research, 6: 189. |
| Antiherpetic 1-5 g/day | |
| Antihistaminic 2 g/day orl man | |
| Antihypertensive | |
| Antiinfertility 1 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiinflammatory | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antileptic 1.5 g/man/day | Martindale's 28th |
| Antilithic 1,000-3,000 mg/day | |
| Antimaculitic | |
| Antimeasles | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antimenopausal 500-5,000 mg/day | |
| Antimigraine | Martindale's 29th |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antineuramidase | |
| Antinitrosic 1 g/man/day | Martindale's 28th |
| Antioesity 1 g 3x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiorchitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antosteoorarthritic 1 g 2x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antosteoporotic 500 mg/day | |
| Antioxidant 100 ppm | |
| Antiparkinsonian 1 g 2-3x/day | |
| Antiparotitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiperiodontitic 1 g 2x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antipneumonic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antipodriac | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipoliomyelic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipyretic | Economic & Medicinal Plant Research, 6: 189. |
| Antiradicular | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antiretinotic | |
| Antirheumatic | |
| Antirhinitic 1,000 mg 3x/day | |
| Antiscorbutic 10 mg/man/day | Martindale's 28th |
| Antiseptic MIC=3.3-217 mg/ml | Martindale's 28th |
| Antisentic 4-8 g/day | Challem, I., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |

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| Antishingles | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antispasmodic 500-5,000 mg/day | |
| Antistress 500-1,000 mg | |
| Antisyndrome-X 1-4 g/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antitumor (Gastric) | |
| Antitumor (Lung) | |
| Antiulcer | |
| Antiviral 1-5 g/day | |
| Apoptotic 1-10 mM | |
| Asthma-preventive 1,000 mg/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Beta-Adrenergic Receptor Blocker | |
| Beta-Glucuronidase-Inhibitor 1.5 g/day/man | |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Cold-preventive 1-2 g/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Collagenic | |
| Detoxicant | |
| Diuretic 700 mg/man/orl | |
| Fistula-Preventive | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Hypocholesterolemic 300-1,000 mg/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Hypoglycemic | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Hypotensive 1,000 mg/man/day | |
| Immunomodulator | |
| Immunostimulant | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Interferonogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Lithogenic | |
| Mucolytic 1 g/woman/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Pesticide | |
| Uricosuric 4 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Urinary-Acidulant | Martindale's 28th |
| Vasodilator | |
| Vulnerary | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

| | | | | | |
|--------------|-------|---------|----------|-------|---|
| ASH | Plant | 10823.0 | 137000.0 | 0.29 | * |
| BARIUM | Plant | 28.0 | 40.0 | -0.49 | * |
| BENZALDEHYDE | Leaf | -- | -- | | * |

Activities (24)

| | |
|------------------------|---|
| Allergenic | |
| Anesthetic | |
| Antibacterial | |
| Anticancer | |
| Antimutagenic | |
| Antipeptic | |
| Antiseptic | |
| Antispasmodic | |
| Antitumor | |
| Candidicide | |
| Flavor FEMA 150-800 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry Leung, A.Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Immunostimulant | |
| Insecticide | Leung, A.Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Insectifuge 50 ppm | J. Stored. Prod. Res., 22:141, 1986. |
| Motor-Depressant | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |
| Narcotic | Merck 11th Edition |
| Nematicide MLC=1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Pesticide | |
| Sedative | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |

LD₁₀₀=3 mg/g
Tyrosinase-Inhibitor ID₅₀=820 μM

Tyrosinase-Inhibitor ID₅₀=87 ug/ml
Tyrosinase-Inhibitor ID₅₀=0.82 mM

Tyrosinase-Inhibitor ID₅₀=830 μM

| | | | | |
|-----------------------------------|-------|----|-----|---|
| BENZOIC-ACID-4-O-BETA-D-GLUCOSIDE | Shoot | -- | 3.0 | * |
| BERGAPten | Fruit | -- | -- | * |

Activities (26)

| | |
|---------------------------------------|---|
| Antiaggregant | |
| Antiapertif | |
| Anticonvulsant | |
| Antihistaminic 25 mg/kg ipr mus | |
| Antiinflammatory | |
| Antijet-lag | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Antileukodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antiplatelet | |
| Antipsoriac | |
| Antispasmodic | |
| Antitumor | |
| CNS-Depressant | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Carcinogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| DME-Inhibitor IC ₅₀ =96 μM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Hypotensive | |
| Insecticide | |
| Lipolytic | |
| Molluscicide | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phototoxic | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| | | | | |
|-----------|----------------|----|----|---|
| BERGAPten | Tissue Culture | -- | -- | * |
|-----------|----------------|----|----|---|

Activities (26)

| | |
|---------------------------------|--|
| Antiaggregant | |
| Antiapertif | |
| Anticonvulsant | |
| Antihistaminic 25 mg/kg ipr mus | |
| Antiinflammatory | |
| Antijet-lag | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Antileukodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antiplatelet | |
| Antipsoriac | |
| Antispasmodic | |
| Antitumor | |
| CNS-Depressant | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |

| | |
|--------------------------|---|
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| DME-Inhibitor IC50=96 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Hypotensive | |
| Insecticide | |
| Lipolytic | |
| Molluscicide | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phototoxic | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

BERGAPten Leaf -- 64.0 -0.58 *

Activities (26)

| | |
|---------------------------------|---|
| Antiaggregant | |
| Antiaperfif | |
| Anticonvulsant | |
| Antihistaminic 25 mg/kg ipr mus | |
| Antiinflammatory | |
| Antijet-lag | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Antileukodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antiplatelet | |
| Antipsoriac | |
| Antispasmodic | |
| Antitumor | |
| CNS-Depressant | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Carcinogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| DME-Inhibitor IC50=96 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Hypotensive | |
| Insecticide | |
| Lipolytic | |
| Molluscicide | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phototoxic | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

BERGAPten Shoot 5.0 2000.0 1.0 *

Activities (26)

| | |
|---------------------------------|--|
| Antiaggregant | |
| Antiaperfif | |
| Anticonvulsant | |
| Antihistaminic 25 mg/kg ipr mus | |
| Antiinflammatory | |
| Antijet-lag | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Antileukodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antiplatelet | |
| Antipsoriac | |
| Antispasmodic | |
| Antitumor | |
| CNS-Depressant | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 | Gawron, A. and Glowniak. K. 1987. Cvstostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |

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|--------------------------|---|
| Carcinogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| DME-Inhibitor IC50=96 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Hypotensive | |
| Insecticide | |
| Lipolytic | |
| Molluscicide | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phototoxic | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |

BERGAPTEN Plant -- 990.0 1.0 *

Activities (26)

| | |
|---------------------------------|---|
| Antiaggregant | |
| Antiapertif | |
| Anticonvulsant | |
| Antihistaminic 25 mg/kg ipr mus | |
| Antiinflammatory | |
| Antijet-lag | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Antileukodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. <i>Cytostatic Activity of Coumarins in vitro</i> . <i>Planta Medica</i> 1987: 526. |
| Antiplatelet | |
| Antipsoriac | |
| Antispasmodic | |
| Antitumor | |
| CNS-Depressant | Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp. |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. <i>Cytostatic Activity of Coumarins in vitro</i> . <i>Planta Medica</i> 1987: 526. |
| Carcinogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| DME-Inhibitor IC50=96 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Hypotensive | |
| Insecticide | |
| Lipolytic | |
| Molluscicide | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phototoxic | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |

BERGAPTEN Seed -- -- *

Activities (26)

| | |
|---------------------------------|--|
| Antiaggregant | |
| Antiapertif | |
| Anticonvulsant | |
| Antihistaminic 25 mg/kg ipr mus | |
| Antiinflammatory | |
| Antijet-lag | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Antileukodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. <i>Cytostatic Activity of Coumarins in vitro</i> . <i>Planta Medica</i> 1987: 526. |
| Antiplatelet | |
| Antipsoriac | |
| Antispasmodic | |
| Antitumor | |
| CNS-Depressant | Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp. |
| Calcium-Antagonist | |

| | | | | | |
|--------------------------|--|--|--|--|--|
| ug/ml | | | | | |
| Carcinogenic | Newall, C.A., Anderson, L.A. and Phillipson, J.D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. | | | | |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| DME-Inhibitor IC50=96 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W.-W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. | | | | |
| Hypotensive | | | | | |
| Insecticide | | | | | |
| Lipolytic | | | | | |
| Molluscicide | | | | | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Pesticide | | | | | |
| Phototoxic | | | | | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |

BERGAPTEN

Root -- -- *

Activities (26)

| | | | | | |
|------------------------------------|--|--|--|--|--|
| Antiaggregant | | | | | |
| Antiaperfif | | | | | |
| Anticonvulsant | | | | | |
| Antihistaminic 25 mg/kg ipr mus | | | | | |
| Antiinflammatory | | | | | |
| Antijet-lag | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. | | | | |
| Antileukodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. | | | | |
| Antiplatelet | | | | | |
| Antipsoriac | | | | | |
| Antispasmodic | | | | | |
| Antitumor | | | | | |
| CNS-Depressant | Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp. | | | | |
| Calcium-Antagonist | | | | | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. | | | | |
| Carcinogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. | | | | |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| DME-Inhibitor IC50=96 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W.-W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. | | | | |
| Hypotensive | | | | | |
| Insecticide | | | | | |
| Lipolytic | | | | | |
| Molluscicide | | | | | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Pesticide | | | | | |
| Phototoxic | | | | | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |

BETA-BISABOLENE

Seed -- 22.0 -0.81 *

Activities (6)

| | | | | | |
|-------------------------------|---|--|--|--|--|
| Abortifacient | | | | | |
| Antirhinoviral IC50=1,800? | Denyer, C.V., Jackson, P., Loakes, D.M., Ellis, M.R., and Yound, D.A.B. Isolation of Antirhinoviral Sesquiterpenes From Ginger (<i>Zingiber officinale</i>). <i>Journal of Natural Products</i> , 57(5): 658-662, 1994. | | | | |
| Antiulcer IC57=100 mg/kg | Yamahara, J., et al. Stomachic principles in ginger. II. Pungent and anti-ulcer effects of low polar constituents isolated from ginger, the dried rhizoma of... <i>Yakugaku Zasshi</i> 112: 645-655 (1992). | | | | |
| Antiviral IC50=1,800? | Denyer, C.V., Jackson, P., Loakes, D.M., Ellis, M.R., and Yound, D.A.B. Isolation of Antirhinoviral Sesquiterpenes From Ginger (<i>Zingiber officinale</i>). <i>Journal of Natural Products</i> , 57(5): 658-662, 1994. | | | | |
| Perfumery | Aloe Research Council - Duke write up of non-peer reviewd book by Coats and draft by Henry | | | | |
| Stomachic | | | | | |

BETA-BISABOLENE

Leaf -- 2.76 -0.43 *

Activities (6)

| | | | | | |
|-------------------------------|---|--|--|--|--|
| Abortifacient | | | | | |
| Antirhinoviral IC50=1,800? | Denyer, C.V., Jackson, P., Loakes, D.M., Ellis, M.R., and Yound, D.A.B. Isolation of Antirhinoviral Sesquiterpenes From Ginger (<i>Zingiber officinale</i>). <i>Journal of Natural Products</i> , 57(5): 658-662, 1994. | | | | |

| | | | | |
|--------------------------|---|--|--|--|
| mg/kg | Takayama et al 1991. 043-000 (1992). | | | |
| Antiviral IC50=1,800? | Denyer, C.V., Jackson, P., Loakes, D.M., Ellis, M.R., and Yound, D.A.B. Isolation of Antirhinoviral Sesquiterpenes From Ginger (<i>Zingiber officinale</i>). <i>Journal of Natural Products</i> , 57(5): 658-662, 1994. | | | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | |
| Stomachic | | | | |

BETA-CAROTENE

Shoot -- -- *

Activities (53)

| | | | | |
|------------------------------------|--|--|--|--|
| Allergenic | | | | |
| Androgenic? | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| AntiPMS | | | | |
| Antiacne | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antiaging | | | | |
| Antiarthritic | | | | |
| Antiasthmatic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Anticancer | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. | | | |
| Anticarcinomic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Anticervicaldysplastic | | | | |
| Anticorony 50 mg/man/2 days | | | | |
| Antihyperkeratotic | | | | |
| Antiichthytic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antileukoplakic | | | | |
| Antilipoperoxidant IC71=50 ug/ml | | | | |
| Antilupus 150 mg/man/day/2 mos | Martindale's 28th | | | |
| Antimaculitic | | | | |
| Antimastitic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. | | | |
| Antioxidant | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antiozenic | | | | |
| Antipapillomic | | | | |
| Antiphoto phobic 30-300 mg/man/day | Martindale's 29th | | | |
| Antipityriasis | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antiporphyrin 30-300 mg/man/day | Martindale's 28th | | | |
| Antiproliferant | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. | | | |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antiradicular | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antirheumatic | | | | |
| Antistress | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | |
| Antitumor | Simon, P.W. Carrots and Other Horticultural Crops as a Source of Provitamin A Carotenes. <i>HortScience</i> , 25(12): 1495, 1990. | | | |
| Antitumor (Breast) IC45=60 ug/ml | | | | |
| Antitumor (CNS) IC43=45 ug/ml | | | | |
| Antitumor (Colon) IC43=45 ug/ml | | | | |
| Antitumor (Lung) IC30=60 ug/ml | | | | |
| Antitumor (Prostate) | | | | |
| Antitumor (Stomach) IC26=45 ug/ml | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Antiulcer 12 mg 3x/day/man/orl | | | | |
| Antiulcer 15,000-25,000 IU/day | | | | |
| Antixerophthalmic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | |
| COX-1-Inhibitor IC78=50 ug/ml | | | | |
| COX-2-Inhibitor IC82=50 ug/ml | | | | |
| Cancer-Preventive 22 ppm | Jim Duke's personal files. | | | |
| Chemopreventive | | | | |
| Colorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Gastroprotective | | | | |
| Immunostimulant 180 mg/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Interferon-Synergist | | | | |
| Mucogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Phagocytotic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Prooxidant 20 ug/g | | | | |
| Thymoprotective | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | |
| Ubiquit | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |

BETA-CAROTENE

Plant 12.0 154.0 0.11 *

| | | | | | |
|------------------------------------|--|--|--|--|--|
| Allergenic | | | | | |
| Androgenic? | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| AntiPMS | | | | | |
| Antiacne | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiaging | | | | | |
| Antiarthritic | | | | | |
| Antiasthmatic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Anticancer | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. | | | | |
| Anticarcinomic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Anticervicaldysplastic | | | | | |
| Anticoronal 50 mg/man/2 days | | | | | |
| Antihyperkeratotic | | | | | |
| Antiichthyiotic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antileukoplakic | | | | | |
| Antilipoperoxidant IC71=50 ug/ml | | | | | |
| Antilupus 150 mg/man/day/2 mos | Martindale's 28th | | | | |
| Antimaculitic | | | | | |
| Antimastitic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. | | | | |
| Antioxidant | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiozenic | | | | | |
| Antipapillomic | | | | | |
| Antiphoto phobic 30-300 mg/man/day | Martindale's 29th | | | | |
| Antipityriasic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiporphyrin 30-300 mg/man/day | Martindale's 28th | | | | |
| Antiproliferant | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. | | | | |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiradicular | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antirheumatic | | | | | |
| Antistress | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antitumor | Simon, P.W. Carrots and Other Horticultural Crops as a Source of Provitamin A Carotenes. HortScience, 25(12): 1495, 1990. | | | | |
| Antitumor (Breast) IC45=60 ug/ml | | | | | |
| Antitumor (CNS) IC43=45 ug/ml | | | | | |
| Antitumor (Colon) IC43=45 ug/ml | | | | | |
| Antitumor (Lung) IC30=60 ug/ml | | | | | |
| Antitumor (Prostate) | | | | | |
| Antitumor (Stomach) IC26=45 ug/ml | | | | | |
| Antiulcer 12 mg 3x/day/man/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiulcer 15,000-25,000 IU/day | | | | | |
| Antixerophthalmic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| COX-1-Inhibitor IC78=50 ug/ml | | | | | |
| COX-2-Inhibitor IC82=50 ug/ml | | | | | |
| Cancer-Preventive 22 ppm | Jim Duke's personal files. | | | | |
| Chemopreventive | | | | | |
| Colorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Gastroprotective | | | | | |
| Immunostimulant 180 mg/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Interferon-Synergist | | | | | |
| Mucogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Phagocytotic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Prooxidant 20 ug/g | | | | | |
| Thymoprotective | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Ubiquiot | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |

| | | | | | |
|--------------------|-------------------|---------|---------|-------|---|
| BETA-CARYOPHYLLENE | Seed | 6.6 | 770.0 | -0.25 | * |
| BETA-CARYOPHYLLENE | Fruit Essent. Oil | 11000.0 | 62100.0 | -0.18 | * |
| BETA-CARYOPHYLLENE | Leaf | -- | 2.46 | -0.33 | * |
| BETA-ELEMENE | Leaf | -- | 5.4 | -0.39 | * |

Activities (5)

| | | | | | |
|------------------------|---|------|---------|-------|--|
| Antiglom | | | | | |
| Antiproliferant | | | | | |
| Antitumor (Cervix) | | | | | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Apoptotic | | | | | |
| | | | | | |
| BETA-FARNESENE | Seed | -- | 25.0 | -1.0 | * |
| BETA-FARNESENE | Leaf | -- | 3.9 | -1.52 | * |
| BETA-PHELLANDRENE | Seed Essent. Oil | -- | 71000.0 | 1.87 | * |
| | | | | | |
| Activities (3) | | | | | |
| Expectorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Fungicide | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| Perfumery | Merck 11th Edition | | | | |
| | | | | | |
| BETA-PHELLANDRENE | Fruit Essent. Oil | -- | 35100.0 | -0.62 | * |
| | | | | | |
| Activities (3) | | | | | |
| Expectorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Fungicide | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| Perfumery | Merck 11th Edition | | | | |
| | | | | | |
| BETA-PHELLANDRENE | Seed | 43.0 | 4970.0 | 1.64 | * |
| | | | | | |
| Activities (3) | | | | | |
| Expectorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Fungicide | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| Perfumery | Merck 11th Edition | | | | |
| | | | | | |
| BETA-PHELLANDRENE | Leaf | 60.0 | 530.0 | 0.8 | * |
| | | | | | |
| Activities (5) | | | | | |
| Antibacterial 5000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Flavor FEMA 0.1-20 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Motor-Depressant | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC | | | | |
| Perfumery 50000-200000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Sedative | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC | | | | |
| | | | | | |
| BETA-PHENYLETHANOL | Fruit Essent. Oil | -- | -- | * | |
| | | | | | |
| Activities (5) | | | | | |
| Antibacterial 5000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Flavor FEMA 0.1-20 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Motor-Depressant | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC | | | | |
| Perfumery 50000-200000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Sedative | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC | | | | |

Activities (13)

| | |
|--------------------|--|
| Allergenic | |
| Antiinflammatory | |
| Antiseptic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antispasmodic | |
| Candidicide | |
| FLavor FEMA 15-600 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Spasmogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Transdermal | |

BETA-PINENE

Leaf -- 2.4 -0.43 *

Activities (13)

| | |
|--------------------|--|
| Allergenic | |
| Antiinflammatory | |
| Antiseptic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antispasmodic | |
| Candidicide | |
| FLavor FEMA 15-600 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Spasmogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Transdermal | |

BETA-PINENE

Fruit
Essent.
Oil 2000.0 203900.0 1.79 ***Activities (13)**

| | |
|--------------------|--|
| Allergenic | |
| Antiinflammatory | |
| Antiseptic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antispasmodic | |
| Candidicide | |
| FLavor FEMA 15-600 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Spasmogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Transdermal | |

BETA-PINENE

Seed
Essent.
Oil -- 378000.0 1.98 ***Activities (13)**

| | |
|--------------------|--|
| Allergenic | |
| Antiinflammatory | |
| Antiseptic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antispasmodic | |
| Candidicide | |
| FLavor FEMA 15-600 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |

| | |
|-------------|--|
| Irritant | Zebowitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Spasmogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Transdermal | |

| | | | | | |
|-------------|------|----|------|-------|---|
| BETA-SELINE | Leaf | -- | 1.68 | -0.51 | * |
|-------------|------|----|------|-------|---|

Activities (3)

| | |
|-------------------------------|--|
| Antimalarial IC50=>50 ug/ml | Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp. |
| Antiplasmodial IC50=>50 ug/ml | Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |

| | | | | | |
|-----------------|------|------|-------|-------|--|
| BETA-SITOSTEROL | Leaf | 20.0 | 180.0 | -0.98 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
|-----------------|------|------|-------|-------|--|

Activities (47)

| | |
|--|---|
| Androgenic | |
| Angiogenic | |
| Anorexic | Martindale's 28th |
| Antiadenomic | Merck 11th Edition |
| Antiandrogenic | Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990. |
| Antibacterial | Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155. |
| Anticancer (Breast) | Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from Vaccinium myrtillus (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103. |
| Anticancer (Cervix) | |
| Anticancer (Lung) | |
| Antiedemic IC54=320 mg/kg orl | |
| Antiestrogenic | Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990. |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antifertility | Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990. |
| Antigonadotrophic | Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990. |
| Antihyperlipoproteinaemic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiinflammatory | |
| Antileukemic | |
| Antilymphomeric | |
| Antimutagenic 250 ug/ml | |
| Antiphidic 2.3 mg mus | Economic & Medicinal Plant Research, 5: 363. |
| Antioxidant IC44=10 uM | |
| Antiprogestational | Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990. |
| Antiprostaglandin 30 mg/day/12 wks | |
| Antiprostatademonic | Merck 11th Edition |
| Antiprostatic 10-20 mg 3 x/day/orl man | |
| Antipyretic | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Antitumor (Breast) | Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from Vaccinium myrtillus (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103. |
| Antitumor (Cervix) | |
| Antitumor (Lung) | |
| Antiviral | Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in Artemisia annua. Plant Science, 75: 161-165, 1991. |
| Apoptotic | |
| Artemicide LC50=110 ppm | Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of Melodorum fruticosum. Phytochemistry, 29(5): 1667-1670. 1990. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155. |
| Caspase-8-Inducer | |
| Estrogenic | |
| Febrifuge | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Gonadotrophic | Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990. |
| Hepatoprotective | |
| Hypocholesterolemic 2-6 g/man/day/orl | Martindale's 30th |
| Hypocholesterolemic 9-3,330 mg/man/day/orl | Martindale's 28th |
| Hypoglycemic | Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. Journal of Ethnopharmacology, 27: 243-275, 1989. |
| Hypolipidemic 2-6 g/day | |

| | |
|--|---|
| Spermicide | Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990. |
| Ubiquit | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Ulcerogenic 500 mg/kg ipr rat | |
| BICYCLOGERMACRENE | Leaf -- 5.16 -0.28 * |
| BIS-NORYANGONIN | Tissue Culture -- -- * |
| BORON | Plant 4.0 54.0 -0.27 * |
| Activities (4) | |
| Androgenic 3 mg/man/day | |
| Antiosteopathic | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antiosteoporotic 3 mg/man/day | |
| Estrogenic 3 mg/man/day | |
| BROMINE | Plant 3.0 21.0 -0.46 ACTA AGRIC SCAND SUPPL 22: 1980 |
| CADMIUM | Plant 0.01 0.57 -0.55 * |
| Activities (3) | |
| Hypertensive | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Lithogenic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Nephrotoxic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| CAFFEIC-ACID | Stem -- -- * |
| Activities (102) | |
| Aldose-Reductase-Inhibitor 4 ug/ml (weak activity) | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Allergenic | |
| Analgesic | |
| AntiHIV EC50=200 ug/ml | |
| AntiLegionella | |
| Antidiabetical | Economic & Medicinal Plant Research, 5: 207. |
| Antiaggregant | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antiaging | |
| Antiatherogenic | |
| Antibacterial | |
| Anticancer | |
| Anticarcinogenic | Economic & Medicinal Plant Research, 6: 189. |
| Antidepressant | |
| Antiedemic | Economic & Medicinal Plant Research, 6: 189. |
| Antielastase IC50=93 um/l | |
| Antielastase IC50=86 ug/ml (475 uM) | |
| Antiescherichic | |
| Antiflu | Economic & Medicinal Plant Research, 5: 207. |
| Antigonadotropic | Jim Duke's personal files. |
| Antihemolytic 25 uM | Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. <i>Phytochemistry</i> . 36(3): 579-583. 1994. |
| Antihepatoadenomic 200 ppm diet orl mus | |
| Antihepatotoxic | |
| Antiherpetic 50 ug/ml | |
| Antiherpetic EC50=>50 ug/ml | |
| Antihistaminic | |
| Antihypercholesterolemic | Economic & Medicinal Plant Research, 6: 189. |
| Antihyperthyroid | |
| Antiinflammatory | |
| Antileukemic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antileukotriene | |
| Antimelanogenic | |
| Antimutagenic | Ki Soon Rhee. <i>Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health</i> , Ch.18. |
| Antinitrosaminic | Ki Soon Rhee. <i>Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health</i> , Ch.18. |
| Antiphidic | |
| Antioxidant 50 uM | |

| | |
|---|---|
| Antioxidant 1/3 quercetin | |
| Antioxidant 30 mM | |
| Antioxidant 1.3 x Vit. E | |
| Antioxidant 1/2 BHA | |
| Antiperoxidant IC50=44 uM | Planta Medica, 57: A54, 1991. |
| Antiperoxidant IC35=200 ug/ml | |
| Antiperoxidant IC85=100 ug/ml | |
| Antiproliferant | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antiprostaglandin | |
| Antiradicular 10 uM | Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. Phytochemistry. 36(3): 579-583. 1994. |
| Antiradicular 1/3 quercetin | |
| Antiradicular 30 mM | |
| Antiradicular IC50=32-35 uM | |
| Antiseptic | |
| Antispasmodic EC50=3.4-15 uM | Phytotherapy Research, 4: 73. |
| Antistaphylococcic | |
| Antistomatisitic | Economic & Medicinal Plant Research, 5: 207. |
| Antisunburn | |
| Antithiamin | Phenolic Compounds in Food and Their Effects on Health, 69. |
| Antithyroid | Jim Duke's personal files. |
| Antitumor 200 ppm diet orl mus | |
| Antitumor (Skin) | |
| Antitumor-Promoter IC42=10 uM | Cancer Research, 48: 5941. |
| Antiulcerogenic | |
| Antivaccinia | Economic & Medicinal Plant Research, 5: 207. |
| Antiviral IC50=62.5 ug/ml | |
| Anxiolytic | |
| CNS-Active | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| COX-2-Inhibitor IC32=100 uM | |
| Calcium-Antagonist IC50=1.2 uM rbt | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Carcinogenic 2% (diet) | |
| Chemopreventive | |
| Cholagogue | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Choleretic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Co-carcinogenic | |
| Collagen-Sparing | |
| Cytoprotective | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Cytotoxic TC50=200 ug/ml | |
| DNA-Active | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| DNA-Protective | |
| Diuretic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Fungicide MIC=0.4 mg/ml | |
| Hepatocarcinogenic 400 ppm diet orl mus (in the absence of alcohol) | |
| Hepatoprotective | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 210. |
| Hepatotropic | |
| Histamine-Inhibitor | |
| Immunostimulant | |
| Insectifuge | Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994. |
| Leukotriene-Inhibitor | |
| Lipoxygenase-Inhibitor IC27=5 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690. |
| Lipoxygenase-Inhibitor IC50=62-148 uM | |
| Lyase-Inhibitor IC50=94-164 uM | |
| Metal-Chelator | McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25. |
| Ornithine-Decarboxylase-Inhibitor | Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19. |
| Pesticide | |
| Prooxidant | |
| Prostaglandenic | |

| | |
|--|---|
| Sunscreen IC50=2.5 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. |
| Sunscreen IC91=5 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. |
| Sunscreen IC98=25 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. |
| Tumorigenic | Jim Duke's personal files. |
| Vulnerary | |
| Xanthine-Oxidase-Inhibitor IC50=39.21 uM | Mills, Simon and Bone, Kerry. 2000. <i>Phytotherapy</i> . Churchill Livingston, Edinburgh. |

CALCIUM Plant 1000.0 16850.0 0.35 *

Activities (28)

| | |
|------------------------------------|--|
| AntiPMS 1 g/day | |
| Antiallergic 500 mg/day | |
| Antianxiety | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antiarrhythmic 500-1,500 mg | |
| Antiarthritic 1,000 mg/day | |
| Antiatherosclerotic 500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Anticlimacteric 1,000-1,500 mg/day | |
| Antidepressant | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antidote (Aluminum) | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antidote (Lead) | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antihyperkinetic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antihypertensive | |
| Antiinsomniac | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antimenopausal 1,000-1,500 mg/day | |
| Antioesity | |
| Antosteoporotic 500-2,000 mg/day | |
| Antiperiodontitic 750 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antirheumatic 1,000 mg/day | |
| Antistress 500-1,500 mg/day | |
| Antitric | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Anxiolytic 500-1,500 mg/day | |
| Calcium-Channel-Blocker | |
| Diuretic | |
| Hypocholesterolemic 500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Hypotensive 1 g/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Laxative 1,000-1,200 mg | |
| Tranquilizer 500-1,500 mg/day | |
| Vasodilator | |

CALCIUM Shoot -- 1600.0 -0.96 *

Activities (28)

| | |
|------------------------------------|--|
| AntiPMS 1 g/day | |
| Antiallergic 500 mg/day | |
| Antianxiety | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antiarrhythmic 500-1,500 mg | |
| Antiarthritic 1,000 mg/day | |
| Antiatherosclerotic 500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Anticlimacteric 1,000-1,500 mg/day | |
| Antidepressant | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antidote (Aluminum) | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antidote (Lead) | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antihyperkinetic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antihypertensive | |
| Antiinsomniac | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antimenopausal 1,000-1,500 mg/day | |
| Antioesity | |
| Antosteoporotic 500-2,000 mg/day | |
| Antiperiodontitic 750 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antirheumatic 1,000 mg/day | |
| Antistress 500-1,500 mg/day | |
| Antitric | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Anxiolytic 500-1,500 mg/day | |
| Calcium-Channel-Blocker | |

| | | | | | |
|--------------------------------|---|--|---------|------|--|
| Hypocholesterolemic 500 mg/day | | | | | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Hypotensive 1 g/day | | | | | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Laxative 1,000-1,200 mg | | | | | |
| Tranquilizer 500-1,500 mg/day | | | | | |
| Vasodilator | | | | | |
| CAMPESTEROL | Sprout Seedling | -- -- | | | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. <i>CRC Handbook of Lipids in Human Nutrition</i> . CRC Press. Boca Raton, FL. 233 pp.) |
| Activities (2) | | | | | |
| Antioxidant IC37=10 μ M | | | | | |
| Hypocholesterolemic | Duke, J. A. | Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. | | | |
| CAMPHENENE | Fruit Essent. Oil | 7000.0 | 20800.0 | 1.36 | * |
| Activities (9) | | | | | |
| Allelopathic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Antilithic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Antioxidant | Jim Duke's personal files. | | | | |
| Expectorant | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| FLavor FEMA 15-175 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Hypocholesterolemic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Insectifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. | | | | |
| Pesticide | | | | | |
| Spasmogenic | Fitoterapia No.59-1984. | | | | |
| CAMPHENENE | Seed Essent. Oil | -- | 5000.0 | 0.29 | * |
| Activities (9) | | | | | |
| Allelopathic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Antilithic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Antioxidant | Jim Duke's personal files. | | | | |
| Expectorant | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| FLavor FEMA 15-175 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Hypocholesterolemic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Insectifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. | | | | |
| Pesticide | | | | | |
| Spasmogenic | Fitoterapia No.59-1984. | | | | |
| CAMPHENENE | Fruit | -- | -- | * | |
| Activities (9) | | | | | |
| Allelopathic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Antilithic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Antioxidant | Jim Duke's personal files. | | | | |
| Expectorant | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| FLavor FEMA 15-175 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Hypocholesterolemic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Insectifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. | | | | |
| Pesticide | | | | | |
| Spasmogenic | Fitoterapia No.59-1984. | | | | |
| CAMPHENENE | Seed | 3.0 | 490.0 | 0.1 | * |
| Activities (9) | | | | | |
| Allelopathic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Antilithic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |

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|----------------------|--|
| Expectorant | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| FLavor FEMA 15-175 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hypocholesterolemic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Insectifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Pesticide | |
| Spasmogenic | Fitoterapia No.59-1984. |

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|------------|------|----|------|-------|---|
| CAMPHENENE | Leaf | -- | 0.24 | -0.19 | * |
|------------|------|----|------|-------|---|

Activities (9)

| | |
|----------------------|--|
| Allelopathic | Wright,C.W.(Ed)2002. <i>Medicinal&Aromatic Plants-Industrial Profiles</i> .Artemisia.344pp.Maffei,M.(Ed)2002, <i>Vetiveria</i> .The Genus <i>Vetiveria</i> .Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999. <i>Tea Tree</i> .The Genus <i>Melaleuca</i> .Harwood Acad.Pub.Amsterdam,Netherlands. |
| Antilithic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antioxidant | Jim Duke's personal files. |
| Expectorant | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| FLavor FEMA 15-175 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hypocholesterolemic? | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Insectifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Pesticide | |
| Spasmogenic | Fitoterapia No.59-1984. |

| | | | | | |
|-----------|------|----|----|----|---|
| CAR-3-ENE | Leaf | -- | -- | -- | * |
|-----------|------|----|----|----|---|

| | | | | | |
|-----------|-------------------------|----|----|----|---|
| CAR-3-ENE | Fruit Essent. Oil | -- | -- | -- | * |
|-----------|-------------------------|----|----|----|---|

| | | | | | |
|-----------|------------------------|----|----|----|---|
| CAR-3-ENE | Seed Essent. Oil | -- | -- | -- | * |
|-----------|------------------------|----|----|----|---|

| | | | | | |
|---------------|-------|---------|----------|-------|---|
| CARBOHYDRATES | Plant | 69100.0 | 590805.0 | -0.53 | * |
|---------------|-------|---------|----------|-------|---|

| | | | | | |
|----------|-------|----|----|----|---|
| CAROTENE | Fruit | -- | -- | -- | * |
|----------|-------|----|----|----|---|

| | | | | | |
|---------|-------|----|----|----|--|
| CAROTOL | Plant | -- | -- | -- | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
|---------|-------|----|----|----|--|

| | | | | | |
|---------|------|----|-----|------|---|
| CARVEOL | Leaf | -- | 3.9 | -1.0 | * |
|---------|------|----|-----|------|---|

Activities (1)

CNS-Stimulant

| | | | | | |
|------------------------------|----------------|----|----|----|---|
| CHALCONE-FLAVONOID-ISOMERASE | Tissue Culture | -- | -- | -- | * |
|------------------------------|----------------|----|----|----|---|

| | | | | | |
|-------------------|----------------|----|----|----|---|
| CHALCONE-SYNTHASE | Tissue Culture | -- | -- | -- | * |
|-------------------|----------------|----|----|----|---|

| | | | | | |
|----------|-------|----|----|----|---|
| CHLORINE | Shoot | -- | -- | -- | * |
|----------|-------|----|----|----|---|

Activities (7)

| | |
|---------------|-------------------|
| Antibacterial | Martindale's 29th |
| Antiherpetic | Martindale's 29th |
| Antiseptic | Martindale's 29th |
| Antiviral | Martindale's 29th |
| Candidicide | Martindale's 29th |
| Fungicide | Martindale's 29th |
| Pesticide | Martindale's 29th |

| | | | | | |
|------------------|------|----|----|----|---|
| CHLOROGENIC-ACID | Stem | -- | -- | -- | * |
|------------------|------|----|----|----|---|

Activities (77)

| | |
|--|---|
| Aldose-Reductase-Inhibitor IC50=1.8 uM rat (strong activity) | Yoshikawa, M., et al. 1999. Medicinal Flowers. I. Aldose Reductase Inhibitors and Three New Eudesmane-Type Sesquiterpenes, Kikkanols A, B, and C, From the Flowers of Chrysanthemum indicum L. <i>Chem Pharm Bull</i> , 47(3): 340-345. |
| Allelochemic | |
| Allergenic | |
| Analgesic | |
| AntiEBV | Economic & Medicinal Plant Research, 6: 189. |
| AntiHIV | Economic & Medicinal Plant Research, 6: 189. |

| | |
|----------------------------------|---|
| Antiatherosclerotic | |
| Antibacterial | |
| Anticancer (Colon) | |
| Anticancer (Forestomach) | |
| Anticancer (Liver) | |
| Anticancer (Skin) | |
| Anticarcinogenic | |
| Antidiabetic | |
| Antifeedant | |
| Antigenotoxic | |
| Antigonadotropic | Jim Duke's personal files. |
| Antihemolytic 10 uM | Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. <i>Phytochemistry</i> . 36(3): 579-583. 1994. |
| Antihepatotoxic | |
| Antiherpetic | Economic & Medicinal Plant Research, 5: 194. |
| Antihistaminic | |
| Antihypercholesterolemic | Economic & Medicinal Plant Research, 6: 189. |
| Antihyperthyroid | |
| Antiinflammatory | Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19. |
| Antileukotriene | |
| Antimelanogenic | |
| Antimutagenic | |
| Antinitrosaminic | |
| Antioxidant IC53=200 ppm | Huang, M-T., and Ferraro, T. Phenolic Compounds in Food and Cancer Prevention. Phenolic Compounds in Food and Their Effects on Health, Ch.2 p.21. |
| Antioxidant IC80=12 uM | |
| Antioxidant IC50=54.2 uM | |
| Antiperoxidant IC50=36 uM | Planta Medica, 57: A54, 1991. |
| Antipolio | Jim Duke's personal files. |
| Antiradicular 10 uM | Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. <i>Phytochemistry</i> . 36(3): 579-583. 1994. |
| Antiradicular 9 x quercetin | |
| Antiseptic | |
| Antisunburn | |
| Antithyroid | Jim Duke's personal files. |
| Antitumor | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, Londón. 791 pp. |
| Antitumor (Colon) | |
| Antitumor (Forestomach) | |
| Antitumor (Liver) | |
| Antitumor (Skin) | |
| Antitumor-Promoter IC25=10 uM | |
| Antiucler | Economic & Medicinal Plant Research, 6: 189. |
| Antiviral | Vlietinck, A.J. and Dommisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart. |
| Autotoxic | |
| CNS-Active | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch für Apotheker und Ärzte</i> . Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| CNS-Stimulant 1/6 Caffeine | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Chemopreventive | |
| Cholagogue | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch für Apotheker und Ärzte</i> . Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Choleretic | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Clastogenic | Friedman, M. and Dao, L. 1990. Effect of Autoclaving and Conventional and Microwave Baking on the Ergot Alkaloid and Chlorogenic Acid Contents of Morning Glory (<i>Ipomoea tricolor</i> Cav. cv.) Heavenly Blue Seeds. <i>J. Agric. Food Chem.</i> 38: 805-808. |
| Collagen-Sparing | |
| Diuretic | |
| Fungicide | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Hepatoprotective | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Histamine-Inhibitor | |
| Hypoglycemic | |
| Immunostimulant | |
| Insectifuge | Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994. |
| Interferonogenic | Economic & Medicinal Plant Research, 1: 124. |
| Juvabional | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvistat | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Leukotriene-Inhibitor | |
| Lipoxygenase-Inhibitor IC23=5 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690. |

| | |
|-----------------------------------|--|
| NO-Genic | |
| Ornithine-Decarboxylase-Inhibitor | Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19. |
| Oviposition-Stimulant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Sunscreen | |
| Sweetener | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Vulnerary | |

| | | | | | |
|----------|-------|-----|-----|-------|---|
| CHROMIUM | Plant | 0.1 | 0.6 | -0.81 | * |
|----------|-------|-----|-----|-------|---|

Activities (24)

| | |
|----------------------------------|--|
| Amphiglycemic? | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| AntiAGE 200-1,000 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| AntiCFS 200 ug | |
| Antiacne | |
| Antiaging 200-1,000 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antiatherosclerotic 20 ug/day | |
| Anticorneotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidiabetic 200-1,000 ug | |
| Antidote (Lead) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antifatigue 200 ug | |
| Antiglycosuric 200-1,000 ug | |
| Antibesity 200-1,000 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antisyndrome-X 200-800 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antitriglyceride 20 ug/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antitriglyceride 200-1,000 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Cardioprotective | |
| Energizer | |
| Hypocholesterolemic 20 ug/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Hypocholesterolemic 200-1,000 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Hypoglycemic 200-1,000 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Hypotensive 200-1,000 ug | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Immunomodulator | |
| Insulinogenic | |
| Memorogenic | |

| | | | | |
|------------------------------------|-------|----|------|--|
| CHRYSOERIOL-7-O-BETA-D-GLUCOSIDE | Seed | -- | -- | * |
| CHRYSOERIOL-7-O-BETA-D-GLUCURONIDE | Leaf | -- | -- | * |
| CIS-3-HEXEN-1-OL | Plant | -- | -- | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| CIS-3-HEXEN-1-OL | Leaf | -- | 18.6 | -0.67 |
| CIS-BETA-OCIMENE | Plant | -- | -- | * |
| CIS-BETA-OCIMENE | Leaf | -- | -- | * |
| CIS-LIGUSTILIDE | Root | -- | -- | * |
| CITRIC-ACID | Root | -- | -- | * |

Activities (23)

| | |
|-------------------------|-------------------|
| Allergenic | |
| Alpha-Amylase-Inhibitor | |
| Antiaphthic 20,000 ppm | Martindale's 28th |
| Antiatherosclerotic | |
| Antibacterial | |

| | |
|-----------------------|--|
| Anticoagulant | Merck 11th Edition |
| Antileishmanic | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antioxidant Synergist | Merck 11th Edition |
| Antiseborheic | |
| Antiseptic | Martindale's 29th |
| Antitubercular | |
| Antitumor | Economic & Medicinal Plant Research, 6: 235. |
| Disinfectant | Martindale's 29th |
| FLavor FEMA 370-4,400 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hemostat | |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Laxative? | Lawrence Review of Natural Products, Sep-91. |
| Litholytic | Martindale's 29th |
| Mycobactericide | |
| Odontolytic | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Refrigerant | Martindale's 28th |

| | | | | | |
|--------|-------|-----|-----|-------|---|
| COBALT | Plant | 0.4 | 4.7 | -0.32 | * |
|--------|-------|-----|-----|-------|---|

Activities (2)

| | |
|---------------------|--|
| Cardiomyopathogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Erythrocytogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |

| | | | | | |
|--------|-------|-----|------|-------|---|
| COPPER | Plant | 1.0 | 12.0 | -0.22 | * |
|--------|-------|-----|------|-------|---|

Activities (12)

| | |
|-------------------------|--|
| Antianemic | |
| Antiarthritic | |
| Antidiabetic 2-4 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antifatigue | |
| Antiinflammatory | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antinociceptive | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiosteoporotic | |
| Cardioprotective | |
| Contraceptive | Martindale's 28th |
| Hypocholesterolemic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Immunomodulator | |
| Schizophrenogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |

| | | | | |
|----------|------|----|-------|---|
| CRISPANE | Seed | -- | 104.0 | * |
|----------|------|----|-------|---|

| | | | | |
|------------|------|----|-------|---|
| CRISPANONE | Seed | -- | 108.0 | * |
|------------|------|----|-------|---|

| | | | | |
|----------|------|----|----|---|
| CRYPTONE | Leaf | -- | -- | * |
|----------|------|----|----|---|

| | | | | |
|-------|------------------------|----|----|---|
| CYMOL | Seed Essent. Oil | -- | -- | * |
|-------|------------------------|----|----|---|

| | | | | | |
|----------------|------|----|------|-------|---|
| DELTA-3-CARENE | Leaf | -- | 0.12 | -0.49 | * |
|----------------|------|----|------|-------|---|

Activities (8)

| | |
|----------------------|--|
| Allergenic? | |
| Antibacterial | Revista Itiliana Eppos, 12: 5, 1994. |
| Antiinflammatory ipr | Internat. J. Oriental Med. 15(4): 194, 1990+ |
| Dermatitigenic | |
| FLavor FEMA | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | |
| Pesticide | |

| | | | | |
|----------------|------|----|-------|---|
| DELTA-CADINENE | Seed | -- | 109.0 | * |
|----------------|------|----|-------|---|

Activities (9)

| |
|----------------------------|
| Aldose-Reductase-Inhibitor |
|----------------------------|

| | |
|-----------------------------|--|
| Antibacterial MIC800 ug/ml | Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. <i>J. Agric. Food Chem.</i> 41: 1102-1105. |
| Anticariogenic MIC800 ug/ml | Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. <i>J. Agric. Food Chem.</i> 41: 1102-1105. |
| Antistreptococcic | |
| Cytochrome-P450-Inducer | |
| P450-Inducer | |
| Pesticide | |
| Testosterone-Inducer | |

DELTA-CADINENE Leaf -- 1.38 -0.46 *

Activities (9)

| | |
|-----------------------------|--|
| Aldose-Reductase-Inhibitor | |
| Antiacne | |
| Antibacterial MIC800 ug/ml | Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. <i>J. Agric. Food Chem.</i> 41: 1102-1105. |
| Anticariogenic MIC800 ug/ml | Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. <i>J. Agric. Food Chem.</i> 41: 1102-1105. |
| Antistreptococcic | |
| Cytochrome-P450-Inducer | |
| P450-Inducer | |
| Pesticide | |
| Testosterone-Inducer | |

DELTA-CADINOL Leaf -- -- *

Activities (1)

Termiticide Material und Organismen , 24: 1, 1989.

DILLAPIOL Fruit -- 37000.0 *
Essent. Oil

Activities (6)

| | |
|-------------------------------|--|
| Antibacterial MIC=45.9->50 nM | Orjala, J., et al. 1993. Five New Prenylated p-Hydroxybenzoic Acid Derivatives with Antimicrobial and Molluscicidal Activity from <i>Piper aduncum</i> Leaves. <i>Planta Medica</i> , 59: 546. |
| Insecticide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Insecticide-Synergist | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Molluscicide | <i>Planta Medica</i> , 55(7): 620. |
| Pesticide | |
| Sedative ED50=1.57 | <i>Chem & Pharm. Bull.</i> , 36: 3153. |

DIMETHYL-BENZOFURAN Leaf -- -- *

DIMETHYL-SULFIDE Leaf -- -- *

Activities (2)

| | |
|-------------------|--|
| FLavor FEMA 0.1-2 | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |

EO Leaf -- 600.0 *

ELEMICIN Fruit -- 42700.0 *
Essent. Oil

Activities (16)

| | |
|---------------------------|---|
| Antiaggregant IC50=360 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. <i>J.of Ethnopharmacology</i> , 29: 179-188, 1990. |
| Antidepressant ihl | Jim Duke's personal files. |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antihistaminic | |
| Antiserotonic | <i>Internat. J. Oriental Med.</i> 15(4): 199, 1990+ |
| Antistress ihl | Jim Duke's personal files. |
| DNA-Binder | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Fungicide MIC=8 ug | |

| | |
|---------------------|---|
| Hypotensive ihl | Jim Duke's personal files. |
| Insecticide 100 ppm | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvicide 100 ppm | |
| Neurotoxic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Anns. Intern. Med. 117(2):165-6; Huxtable, R. |
| Pesticide | |
| Schistosomicide | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp. |

| | | | | | |
|----------|------|----|-------|-------|---|
| ELEMICIN | Seed | -- | 821.0 | -1.11 | * |
|----------|------|----|-------|-------|---|

Activities (16)

| | |
|---------------------------|---|
| Antiaggregant IC50=360 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. J.of Ethnopharmacology, 29: 179-188, 1990. |
| Antidepressant ihl | Jim Duke's personal files. |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antihistaminic | |
| Antiserotonic | Internat. J. Oriental Med. 15(4): 199, 1990+ |
| Antistress ihl | Jim Duke's personal files. |
| DNA-Binder | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Fungicide MIC=8 ug | |
| Hallucinogenic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Anns. Intern. Med. 117(2):165-6; Huxtable, R. |
| Hypotensive ihl | Jim Duke's personal files. |
| Insecticide 100 ppm | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvicide 100 ppm | |
| Neurotoxic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Anns. Intern. Med. 117(2):165-6; Huxtable, R. |
| Pesticide | |
| Schistosomicide | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp. |

| | | | | | |
|----------|------|----|------|------|---|
| ELEMICIN | Leaf | -- | 18.0 | -0.7 | * |
|----------|------|----|------|------|---|

Activities (16)

| | |
|---------------------------|---|
| Antiaggregant IC50=360 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. J.of Ethnopharmacology, 29: 179-188, 1990. |
| Antidepressant ihl | Jim Duke's personal files. |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antihistaminic | |
| Antiserotonic | Internat. J. Oriental Med. 15(4): 199, 1990+ |
| Antistress ihl | Jim Duke's personal files. |
| DNA-Binder | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Fungicide MIC=8 ug | |
| Hallucinogenic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Anns. Intern. Med. 117(2):165-6; Huxtable, R. |
| Hypotensive ihl | Jim Duke's personal files. |
| Insecticide 100 ppm | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvicide 100 ppm | |
| Neurotoxic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Anns. Intern. Med. 117(2):165-6; Huxtable, R. |
| Pesticide | |
| Schistosomicide | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp. |

| | | | | | |
|----|-------|----|-------|-------|---|
| EO | Fruit | -- | 600.0 | -0.81 | * |
|----|-------|----|-------|-------|---|

| | | | | | |
|----|------|---------|---------|------|--|
| EO | Seed | 15000.0 | 70000.0 | 0.33 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952. |
|----|------|---------|---------|------|--|

| | | | | | |
|----|------|-------|--------|-------|---|
| EO | Leaf | 600.0 | 3000.0 | -0.75 | * |
|----|------|-------|--------|-------|---|

| | | | | | |
|----|------|-------|--------|-------|---|
| EO | Root | 500.0 | 5000.0 | -0.42 | * |
|----|------|-------|--------|-------|---|

| | | | | | |
|----|-------|------|--------|-------|---|
| EO | Plant | 40.0 | 3000.0 | -0.51 | * |
|----|-------|------|--------|-------|---|

| | | | | | |
|-------------|-------|----|----|--|--|
| ERIODICTYOL | Plant | -- | -- | | Stitt, Paul. Why George should eat broccoli. |
|-------------|-------|----|----|--|--|

Activities (10)

| | |
|-------------------------------------|--|
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Antifeedant IC50=<1,000 ppm diet | Lydon, J. & Duke, S., <i>The potential of pesticides from plants</i> , pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antiinflammatory | |
| Antioxidant | |
| Antiperoxidant | Planta Medica, 57: A110, 1991. |
| Aphidifuge | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Expectorant | Lawrence Review of Natural Products, Mar-91. |
| Juvabional | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Pesticide | |

ERIODICTYOL

Tissue Culture -- -- *

Activities (10)

| | |
|-------------------------------------|--|
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Antifeedant IC50=<1,000 ppm diet | Lydon, J. & Duke, S., <i>The potential of pesticides from plants</i> , pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antiinflammatory | |
| Antioxidant | |
| Antiperoxidant | Planta Medica, 57: A110, 1991. |
| Aphidifuge | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Expectorant | Lawrence Review of Natural Products, Mar-91. |
| Juvabional | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Pesticide | |

ESTRAGOLE

Leaf -- 1.6 -0.89 *

Activities (12)

| | |
|--|---|
| Antiaggregant IC50=320 uM | Laekeman, G.M., Van Hoof, L., Haemers, A., Vanden Berghe, D.A., Herman, A.G., and Vlietinck, A.J. <i>Eugenol a Valuable Compound for In Vitro Experimental Research and Worthwhile for Further In Vivo Investigation.</i> Phytotherapy Research 4(3): 93, 1990. |
| Calcium-Antagonist IC50=257.6 uM gpg | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Carcinogenic 4.4 uM/15 mos. scu mus | |
| DNA-Binder | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| FLavor FEMA 4-150 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hepatocarcinogenic 0.23-0.46% diet/12 mos. | |
| Hypothermic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Insecticide | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Insectifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Mutagenic | |
| Perfumery | Merck 11th Edition |

ETHANOL

Leaf -- -- *

Activities (24)

| | |
|---------------------------|--|
| Allergenic | |
| Anesthetic 4,000 orl cat | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. <i>Drug Dosage in Laboratory Animals: A Handbook.</i> (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. |
| Anesthetic 6,000 orl rat | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. <i>Drug Dosage in Laboratory Animals: A Handbook.</i> (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. |
| Anhydrotic | Martindale's 29th |
| Antiatherosclerotic | |
| Antibacterial | Martindale's 28th |
| Antipruritic | Martindale's 28th |
| Antiseptic | Merck 11th Edition |
| CNS-Depressant | Martindale's 28th |
| Expectorant | Schulz, V., Hansel, R and Tyler, VE. 1998. <i>Rational Phytotherapy - A Physician's Guide to Herbal Medicine.</i> 3rd ed. 1st English Edition. Translated by Terry C. Telger. Springer Verlag, Heidelberg. 306 pp. |
| Hepatotoxic | Martindale's 29th |
| Hypertensive >1 drink/day | |

| | | | | |
|-----------------------------------|--|--|--|--|
| Antidote=Naloxone | | | | |
| Hypocalcemic 4,000 orl rat | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. | | | |
| Hypotensive 1 drink/day | | | | |
| Mucotropic | Schulz, V, Hansel, R and Tyler, VE. 1998. Rational Phytotherapy - A Physician's Guide to Herbal Medicine. 3rd ed. 1st English Edition. Translated by Terry C. Telger. Springer Verlag, Heidelberg. 306 pp. | | | |
| Neurolytic | Merck 11th Edition | | | |
| Pesticide | | | | |
| Rubefacient | Martindale's 29th | | | |
| Sclerosant | Martindale's 29th | | | |
| Surfactant | Schulz, V, Hansel, R and Tyler, VE. 1998. Rational Phytotherapy - A Physician's Guide to Herbal Medicine. 3rd ed. 1st English Edition. Translated by Terry C. Telger. Springer Verlag, Heidelberg. 306 pp. | | | |
| Teratogenic 6,000 orl dog | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. | | | |
| Tremorilytic | Martindale's 28th | | | |
| Ulcerogenic 5 ml/kg (50%) orl rat | | | | |

| | | | | |
|---------|-------|----|----|--|
| ETHANOL | Plant | -- | -- | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
|---------|-------|----|----|--|

Activities (24)

| | | | | |
|-----------------------------------|--|--|--|--|
| Allergenic | | | | |
| Anesthetic 4,000 orl cat | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. | | | |
| Anesthetic 6,000 orl rat | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. | | | |
| Anhydrotic | Martindale's 29th | | | |
| Antiatherosclerotic | | | | |
| Antibacterial | Martindale's 28th | | | |
| Antipruritic | Martindale's 28th | | | |
| Antiseptic | Merck 11th Edition | | | |
| CNS-Depressant | Martindale's 28th | | | |
| Expectorant | Schulz, V, Hansel, R and Tyler, VE. 1998. Rational Phytotherapy - A Physician's Guide to Herbal Medicine. 3rd ed. 1st English Edition. Translated by Terry C. Telger. Springer Verlag, Heidelberg. 306 pp. | | | |
| Hepatotoxic | Martindale's 29th | | | |
| Hypertensive >1 drink/day | | | | |
| Hypnotic | Martindale's 29th | | | |
| Antidote=Naloxone | | | | |
| Hypocalcemic 4,000 orl rat | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. | | | |
| Hypotensive 1 drink/day | | | | |
| Mucotropic | Schulz, V, Hansel, R and Tyler, VE. 1998. Rational Phytotherapy - A Physician's Guide to Herbal Medicine. 3rd ed. 1st English Edition. Translated by Terry C. Telger. Springer Verlag, Heidelberg. 306 pp. | | | |
| Neurolytic | Merck 11th Edition | | | |
| Pesticide | | | | |
| Rubefacient | Martindale's 29th | | | |
| Sclerosant | Martindale's 29th | | | |
| Surfactant | Schulz, V, Hansel, R and Tyler, VE. 1998. Rational Phytotherapy - A Physician's Guide to Herbal Medicine. 3rd ed. 1st English Edition. Translated by Terry C. Telger. Springer Verlag, Heidelberg. 306 pp. | | | |
| Teratogenic 6,000 orl dog | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. | | | |
| Tremorilytic | Martindale's 28th | | | |
| Ulcerogenic 5 ml/kg (50%) orl rat | | | | |

FALCARINDIOL

Root -- -- *

Activities (13)

| | |
|--------------------------------|---|
| Analgesic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiaggregant | |
| Antibacterial | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| Antimutagenic ID50=0.096 uM/ml | |
| Antiseptic | |
| Antitubercular | |
| Cytotoxic | |
| Ferulosys-genic | |
| Fungicide 0.5 ug/ml | Recio, M. C., Rios, J. L., and Villar, A. A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, <i>Phytotherapy Research</i> , 3(4), 1989, 117-125. |
| Mycobactericide | |
| Nematicide | |
| Pesticide | |

| | | | | | |
|-----------------------------------|---|----------|----------|-------|------------------------------------|
| FALCARINOL | Root | -- | 10.0 | -0.84 | * |
| Activities (16) | | | | | |
| Allergenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Analgesic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | | |
| Antibacterial | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | | |
| Anticancer | | | | | |
| Antimelanomic | 0.25-3 mg/kg | | | | |
| Antiseptic | | | | | |
| Antithromboxane | | | | | |
| Antitubercular | | | | | |
| Antitumor | | | | | |
| Cytotoxic | 0.22-3.8 mg/kg | | | | |
| Fungistat EC50=9.2 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | | | |
| Mycobactericide | | | | | |
| Pesticide | | | | | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | | | |
| Prostaglandin-Synthesis-Inhibitor | Fujimoto, Y., et al. 1998. Inhibition of 15-hydroxyprostaglandin Dehydrogenase Activity in Rabbit Gastric Antral Mucosa by Panaxynol Isolated from Oriental Medicines. <i>J Pharmacy & Pharmacology</i> , 50(9): 1075-1078. | | | | |
| Sedative | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | | |
| FALCARINONE | Root | -- | 15.0 | 1.0 | * |
| Activities (3) | | | | | |
| Fungicide | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | | |
| Pesticide | | | | | |
| Phytoalexin | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| FAT | Seed | 130000.0 | 330000.0 | 0.34 | * |
| FAT | Plant | 3792.0 | 48000.0 | -0.05 | * |
| FIBER | Plant | 12000.0 | 202464.0 | -0.15 | * |
| Activities (15) | | | | | |
| Angiotensin-Receptor-Blocker | | | | | |
| Antidiabetic | | | | | |
| Antihypertensive | | | | | |
| Antiobesity | | | | | |
| Antitumor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiulcer | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Beta-Blocker | | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |
| Cardioprotective | | | | | |
| Diuretic | | | | | |
| Hypocholesterolemic | | | | | |
| Hypotensive 10 g/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Hypouricemic | | | | | |
| Laxative | | | | | |
| Vasodilator | | | | | |
| FIBER(CRUEDE) | Plant | -- | 113000.0 | 0.17 | * |
| FIBER(DIETARY) | Plant | -- | 293000.0 | -0.77 | * |
| FLAVANONE-SYNTASE | Tissue Culture | -- | -- | | * |
| FLAVONOIDS | Tissue Culture | -- | -- | | * |
| FLUORINE | Plant | 0.6 | 7.8 | 1.41 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| FOLACIN | Plant | 2.0 | 17.0 | -0.46 | USDA's Ag Handbook 8 and sequelae) |
| Activities (15) | | | | | |
| AntiSpina-Bifida | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antianemic 5-20 mg/man/day | | | | | |

| | |
|---------------------------------|--|
| mg/wmn/day/orl | (Looseleaf). |
| Anticheilitic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antidepressant | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antigingivitic 2-5 mg/day/man | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiglossitic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antimyelotoxic 5 mg/day/orl/man | Martindale's 29th |
| Antineuropathic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antiperiodontitic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplaque | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antipsychotic | Martindale's 29th |
| Hematopoietic | Merck 11th Edition |
| Uricosuric | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Xanthine-Oxidase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |

| | | | | |
|--------------|------|----|----|---|
| FUMARIC-ACID | Root | -- | -- | * |
|--------------|------|----|----|---|

Activities (7)

| | |
|--|--|
| Acidulant | Martindale's 28th |
| Antidermatitic | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart</i> . 393 pp. |
| Antihepatocarcinogenic IC100=1% (diet) | Akao, M. and Kuroda, K. 1990. Inhibitory Effect of Fumaric Acid on Hepatocarcinogenesis by Thioacetamide in Mice. <i>Chem. Pharm. Bull.</i> 38(7): 2012-2014, 1990. |
| Antioxidant | Merck 11th Edition |
| Antipsoriac | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart</i> . 393 pp. |
| Antitumor | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| FLavor FEMA 50-3,600 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |

| | | | | |
|-----------------|-------------------------|---------|---------|---|
| FURANOCOUMARINS | Root | -- | -- | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| GAMMA-CADINENE | Leaf | -- | -- | * |
| GAMMA-ELEMENE | Leaf | -- | -- | * |
| GAMMA-TERPINENE | Fruit Essent. Oil | 16000.0 | 36300.0 | 1.36 |

Activities (11)

| | |
|---|--|
| ACE-Inhibitor 100 ug/ml (weak activity) | |
| Acaricide | |
| Aldose-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. <i>Toyama-Ken Yakuji Kenkyusho Nenpo</i> , (20): 95-101. |
| Antiacetylcholinesterase IC23=1.2 mM | |
| Antifeedant | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Antioxidant | Jim Duke's personal files. |
| FLavor FEMA 1-40 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Insectifuge | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |

| | | | | | |
|-----------------|------------------------|----|--------|-------|---|
| GAMMA-TERPINENE | Seed Essent. Oil | -- | 5000.0 | -1.06 | * |
|-----------------|------------------------|----|--------|-------|---|

Activities (11)

| | |
|---|---|
| ACE-Inhibitor 100 ug/ml (weak activity) | |
| Acaricide | |
| Aldose-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. <i>Toyama-Ken Yakuji Kenkyusho Nenpo</i> , (20): 95-101. |
| Antiacetylcholinesterase IC23=1.2 mM | |
| Antifeedant | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Antioxidant | Jim Duke's personal files. |
| FLavor FEMA 1-40 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |

Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.

Irritant Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

Perfumery Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Pesticide

GAMMA-TERPINENE

Seed 3.0 1120.0 -0.63 *

Activities (11)

ACE-Inhibitor 100 ug/ml
(weak activity)

Acaricide

Aldose-Reductase-Inhibitor 100 ug/ml Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101.

Antiacetylcholinesterase
IC₂₃=1.2 mM

Antifeedant Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.

Antioxidant Jim Duke's personal files.

FLavor FEMA 1-40

Insectifuge Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.

Irritant

Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Pesticide

GAMMA-TERPINENE

Leaf -- 0.42 -0.37 *

Activities (11)

ACE-Inhibitor 100 ug/ml
(weak activity)

Acaricide

Aldose-Reductase-Inhibitor 100 ug/ml Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101.

Antiacetylcholinesterase
IC₂₃=1.2 mM

Antifeedant Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.

Antioxidant Jim Duke's personal files.

FLavor FEMA 1-40

Insectifuge Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.

Irritant

Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Pesticide

GERANIOL

Leaf -- 1.26 -0.23 *

Activities (35)

Allergenic

Anthelmintic Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.

Antibacterial MIC=400 ug/ml

Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105.

Antibacterial MIC=64 ug/ml

Antibacterial MBC=800 ug/ml

Anticancer (Pancreas) IC₅₀=265 uM

Anticariogenic MIC=400 ug/ml

Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105.

Antimelanomic IC₅₀=150 uM/l

Antisalmonella MIC=400 ug/ml

Antiseptic 7 x phenol Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)

Antiseptic MIC=64 ug/ml

Antiseptic 400-800 ug/ml

Antispasmodic Buchbauer, G., Jirovetz*, L., Nikiforov, A., Remberg, G., Raverdin, V. 1989. Headspace-Analysis and Aroma Compounds of Austrian Hay-Blossoms (Flores Graminis, Graminis Flos) used in Aromatherapy. J. Ess. Oil Res., 2: 185-191, 1990.

Antitubercular MIC=64 ug/ml

Antitumor Yu, S.G., Anderson, P.J., and Elson, C.E. 1995. Efficacy of B-Ionone in the Chemoprevention of Rat Mammary Carcinogenesis. J. Agric. Food Chem. 43: 2144-2147.

Antitumor (Pancreas)

| | |
|--------------------------------|--|
| Ascaricide | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| CNS-Stimulant | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | |
| Embryotoxic | |
| Emetic 3 x ipecac | Lawrence Review of Natural Products, Sep-97. |
| Expectorant | Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| FLavor FEMA 1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide IC93=2 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Herbicide IC100-2,000 μ M | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge 50 ppm | |
| Insectiphile | Merck 11th Edition |
| Mycobactericide MIC=64 ug/ml | |
| Nematicide IC86=100 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Nematicide MLC=1,000 ug/ml | Shoyakugaku Zasshi, 44: 183. |
| Perfumery | Merck 11th Edition |
| Pesticide | |
| Sedative | |
| Trichomonicide LD100=300 ug/ml | |

GERMACRENE-D Leaf -- 6.9 -0.52 *

Activities (2)

Pesticide
Pheromone

GLYCOLIC-ACID Seed -- -- List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities (4)

Cholerolytic
Diuretic Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Hepatotonic Fitoterapia No.5-1986.
Irritant Merck 11th Edition

GLYCOLIC-ACID Root -- -- *

Activities (4)

Cholerolytic
Diuretic Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Hepatotonic Fitoterapia No.5-1986.
Irritant Merck 11th Edition

GRAVEOLONE Leaf -- -- *

GRAVEOLONE Tissue Culture -- -- *

HERACLENOL Seed -- 3.7 *

HEX-3-EN-1-YL-ACETATE Leaf -- -- *

HEX-3-EN-1-YL-ACETATE Plant -- -- Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

HEX-CIS-3-EN-1-OL Leaf -- -- *

HEX-CIS-3-EN-1-YL-ACETATE Plant -- -- *

HEXADECENOIC-ACID Leaf -- 0.24 *

HEXAN-1-AL Leaf -- -- *

IMPERATORIN Leaf -- 0.53 *

Activities (25)

Antiaflatoxin IC50=2.66 μ M
Antiaflatoxin 0.7 ppm

| | |
|-----------------------------------|--|
| Antialope cic | Martindale's 28th |
| Anticonvulsant | |
| Antiinflammatory | |
| Antileukodermic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antiplatelet | |
| Antitumor-Promoter IC86=50 ug/ml | |
| Antivitiligo | |
| Bufocide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Calcium-Antagonist IC50=4 ug/ml | |
| Calcium-Antagonist 31.6 ug/ml gpg | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Cytochrome-P450-Inhibitor 2 nM | |
| DME-Inhibitor IC50=116 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Hepatoprotective IC50=2.66 uM | |
| Hepatoprotective 0.7 ppm | |
| Hepatotoxic | |
| Lipolytic | |
| Molluscicide | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Sedative | Buchbauer, G., Jirovetz*, L., Nikiforov, A., Remberg, G., Raverdin, V. 1989. Headspace-Analysis and Aroma Compounds of Austrian Hay-Blossoms (<i>Flores Graminis</i> , <i>Graminis Flos</i>) used in Aromatherapy. <i>J. Ess. Oil Res.</i> , 2: 185-191, 1990. |

IMPERATORIN

Fruit 1.0 6.0 -0.67 *

Activities (25)

| | |
|-----------------------------------|--|
| Antiaflatoxin IC50=2.66 uM | |
| Antiaflatoxin 0.7 ppm | |
| Antiaggregant | |
| Antialope cic | Martindale's 28th |
| Anticonvulsant | |
| Antiinflammatory | |
| Antileukodermic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antiplatelet | |
| Antitumor-Promoter IC86=50 ug/ml | |
| Antivitiligo | |
| Bufocide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Calcium-Antagonist IC50=4 ug/ml | |
| Calcium-Antagonist 31.6 ug/ml gpg | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Cytochrome-P450-Inhibitor 2 nM | |
| DME-Inhibitor IC50=116 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Hepatoprotective IC50=2.66 uM | |
| Hepatoprotective 0.7 ppm | |
| Hepatotoxic | |
| Lipolytic | |
| Molluscicide | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Sedative | Buchbauer, G., Jirovetz*, L., Nikiforov, A., Remberg, G., Raverdin, V. 1989. Headspace-Analysis and Aroma Compounds of Austrian Hay-Blossoms (<i>Flores Graminis</i> , <i>Graminis Flos</i>) used in Aromatherapy. <i>J. Ess. Oil Res.</i> , 2: 185-191, 1990. |

Activities (8)

| | |
|----------------------------------|--|
| Antialopeptic | |
| Anticirrhotic | |
| Antidiabetic? | Martindale's 29th |
| Antineuropathic? 2 g/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Cholesterolytic 2,000 mg/man/day | |
| Lipotropic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Sweetener | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Ubiquiot | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |

IRON

Shoot -- -- *

Activities (6)

| | |
|-----------------------------------|--|
| Antiakathisic | Martindale's 29th |
| Antianemic | Martindale's 29th |
| Anticanker | |
| Anticheilitic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antimenorhagic 100 mg/day/wmn/orl | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Prooxidant | |

IRON

Plant 1.3 17.0 -0.72 *

Activities (6)

| | |
|-----------------------------------|--|
| Antiakathisic | Martindale's 29th |
| Antianemic | Martindale's 29th |
| Anticanker | |
| Anticheilitic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antimenorhagic 100 mg/day/wmn/orl | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Prooxidant | |

ISOIMPERATORIN

Leaf -- -- *

Activities (8)

| | |
|------------------------------------|---|
| Antitumor-Promoter IC94=50 ug/ml | |
| Artemicide ED50=6->100 ug/ml | |
| Calcium-Antagonist | |
| Cytochrome-P450-Inhibitor 2 nM | |
| Cytotoxic (Breast) ED50=6.56 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=>10 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| DME-Inhibitor IC50=46 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Pesticide | |

ISOIMPERATORIN

Root -- 500.0 *

Activities (8)

| | |
|------------------------------------|---|
| Antitumor-Promoter IC94=50 ug/ml | |
| Artemicide ED50=6->100 ug/ml | |
| Calcium-Antagonist | |
| Cytochrome-P450-Inhibitor 2 nM | |
| Cytotoxic (Breast) ED50=6.56 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=>10 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| DME-Inhibitor IC50=46 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Pesticide | |

ISOIMPERATORIN

Fruit -- 6.0 -0.41 *

| | |
|---------------------------------------|---|
| Antitumor-Promoter IC94=50 ug/ml | |
| Artemicide ED50=6->100 ug/ml | |
| Calcium-Antagonist | |
| Cytochrome-P450-Inhibitor 2 nM | |
| Cytotoxic (Breast) ED50=6.56 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=>10 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| DME-Inhibitor IC50=46 uM | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134. |
| Pesticide | |

| | | | | | |
|----------------|-------|-----|------|------|---|
| ISOPIMPINELLIN | Shoot | 0.3 | 79.0 | -1.0 | * |
|----------------|-------|-----|------|------|---|

Activities (15)

| | |
|------------------------------|--|
| Antiappetant | |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antiinflammatory 100 ppm | |
| Antilipogenic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antitubercular | |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Diuretic 125 mg/kg | |
| Fungicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Insecticide | |
| Molluscicide | |
| Mutagenic | |
| Pesticide | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| | | | | |
|----------------|-------|----|----|---|
| ISOPIMPINELLIN | Fruit | -- | -- | * |
|----------------|-------|----|----|---|

Activities (15)

| | |
|------------------------------|--|
| Antiappetant | |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antiinflammatory 100 ppm | |
| Antilipogenic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antitubercular | |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Diuretic 125 mg/kg | |
| Fungicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Insecticide | |
| Molluscicide | |
| Mutagenic | |
| Pesticide | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| | | | | |
|----------------|------|----|----|---|
| ISOPIMPINELLIN | Root | -- | -- | * |
|----------------|------|----|----|---|

Activities (15)

| | |
|------------------------------|--|
| Antiappetant | |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antiinflammatory 100 ppm | |
| Antilipogenic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antitubercular | |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Diuretic 125 mg/kg | |
| Fungicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| | |
|--------------|---|
| Insecticide | |
| Molluscicide | |
| Mutagenic | |
| Pesticide | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |

| | | | | |
|----------------|-------|----|----|---|
| ISOPIMPINELLIN | Plant | -- | -- | * |
|----------------|-------|----|----|---|

Activities (15)

| | |
|------------------------------|---|
| Antiappetant | |
| Antifeedant | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antiinflammatory 100 ppm | |
| Antilipogenic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antitubercular | |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Diuretic 125 mg/kg | |
| Fungicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Insecticide | |
| Molluscicide | |
| Mutagenic | |
| Pesticide | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |

| | | | | |
|----------------|----------------|----|----|---|
| ISOPIMPINELLIN | Tissue Culture | -- | -- | * |
|----------------|----------------|----|----|---|

Activities (15)

| | |
|------------------------------|---|
| Antiappetant | |
| Antifeedant | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antiinflammatory 100 ppm | |
| Antilipogenic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antitubercular | |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Diuretic 125 mg/kg | |
| Fungicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Insecticide | |
| Molluscicide | |
| Mutagenic | |
| Pesticide | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |

| | | | | |
|----------------|------|-----|------|---|
| ISOPIMPINELLIN | Leaf | 1.8 | 28.0 | * |
|----------------|------|-----|------|---|

Activities (15)

| | |
|------------------------------|---|
| Antiappetant | |
| Antifeedant | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antiinflammatory 100 ppm | |
| Antilipogenic | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Antitubercular | |
| Calcium-Antagonist | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Diuretic 125 mg/kg | |
| Fungicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Insecticide | |
| Molluscicide | |
| Mutagenic | |
| Pesticide | |

| | | | | |
|---|---|----|----|--|
| JASMONIC-ACID | Leaf | -- | -- | * |
| KAEMPFEROL | Plant | -- | -- | Stitt, Paul. Why George should eat broccoli. |
| Activities (75) | | | | |
| 11B-HSD-Inhibitor | | | | |
| 5-Lipoxygenase-Inhibitor IC50 (uM)=20 | | | | |
| Aldose Reductase-Inhibitor 100 uM | Oliveira, T. T., Nagem, T. J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. <i>J Braz Chem Soc</i> , 8(3): 211-213. | | | |
| Antiaflatoxin IC50=8.73 uM | | | | |
| Antiaflatoxin IC50=3.28 ppm | | | | |
| Antiaggregant 30 uM | | | | |
| Antiallergic | | | | |
| Antibacterial 20 ug/ml | | | | |
| Anticancer | | | | |
| Antifertility 250 mg/kg/day/60 days/orl rat | Kumar, P., Dixit*, V.P., and Khanna, P. Antifertility Studies of Kaempferol: Isolation and Identification from Tissue Culture of some Medicinally Important Plant Species. <i>Plantes medicinales et phytotherapie</i> , 23: 193-201, 1989. | | | |
| Antigingivitic 20 ug/ml | | | | |
| Antiperistaltic 23-92 ug/ml | Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992. | | | |
| Antihistaminic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. | | | |
| Antiimplantation | | | | |
| Antiinflammatory 20 mg/kg | | | | |
| Antiinflammatory 200 mg/kg ipr rat | | | | |
| Antileukemic IC50=3.1 ug/ml | Life Sciences 55: 1061. | | | |
| Antilymphocytic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Antimutagenic ID50=10-40 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. | | | |
| Antioxidant IC50=40 uM | | | | |
| Antioxidant 3/4 quercetin | | | | |
| Antioxidant IC50=1.2 ug/ml | | | | |
| Antiperiodontic 20 ug/ml | | | | |
| Antiplaque 20 ug/ml | | | | |
| Antiradicular 7 x quercetin | | | | |
| Antiseptic 20 ug/ml | | | | |
| Antiserotonin 200 mg/kg ipr rat | | | | |
| Antispasmodic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. | | | |
| Antistaphylococcal | | | | |
| Antitumor | | | | |
| Antitumor-Promoter | Yasukawa, K., Takido, M., Takeuchi, M., Sato, Y., Nitta, K., and Nakagawa, S. 1989. Inhibitory Effects of Flavonol Glycosides on 12-O-Tetradecanoylphorbol-13-acetate-Induced Tumor Promotion. <i>Chem. Pharm. Bull.</i> 38(3): 774-776, 1990. | | | |
| Antiulcer 50-200 mg/kg ipr rat | | | | |
| Antiviral 23-92 ug/ml | | | | |
| Apoptotic 60 uM | | | | |
| Aromatase-Inhibitor IC12=1 uM/l | Journal of Medicinal Food 2: 235.1999. | | | |
| COX-2-Inhibitor | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | |
| Carcinogenic | Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. Zulu Medicinal Plants. An inventory. University of Natal Press, Pietermaritzburg. 450 pp. | | | |
| Choleretic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. | | | |
| Copper-Chelator | | | | |
| Cyclooxygenase-Inhibitor IC50 (uM) =20 | | | | |
| Cytotoxic | | | | |
| Diaphoretic? | Lawrence Review of Natural Products, Dec-90. | | | |
| Diuretic | | | | |
| Estrogenic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. | | | |
| Estrogenic EC50=0.56 uM | | | | |
| Fungicide 20 ug/ml | Father Nature's Farmacy: The aggregate of all these three-letter citations. | | | |
| HIV-RT-Inhibitor | Garcia, I., Morin,* C., Nvasse, B., Sonde noam, B-L., Tchouankeu, I-C.. and Tsamo, E. Complete Structural Assisnments Of An Eraosterol Derivative | | | |

| | |
|------------------------------------|---|
| Hepatoprotective | |
| IC50=5.46 uM | |
| Hepatoprotective | |
| IC50=1.30 ppm | |
| Hypotensive | |
| ICAM-1-Inhibitor | |
| Inotropic | |
| Iodothyronine-Deiodinase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| JNK-Inhibitor | |
| Lipoxygenase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| MAO-Inhibitor | |
| Mutagenic | |
| NO-Inhibitor IC50=13.9 uM | |
| Natriuretic | |
| Neuroprotective | |
| PAF-Inhibitor | |
| Pesticide | |
| Protisticide | Meckes, M., Calzada, F., Tapia-Contreras, A., Cedillo-Rivera, R. 1999. Antiprotozoal Properties of <i>Helianthemum glomeratum</i> . <i>Phytotherapy Research</i> , 13(2): 102-105. |
| Quinone-Reductase-Inducer | Quinone-Reductase-Inducer 3 uM |
| TNF-alpha-Inhibitor | IC50=3.99 uM |
| Teratologic | |
| Topoisomerase-I-Inhibitor | Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237. |
| Topoisomerase-II-Inhibitor | Constantinou, A., Mehta, R., Runyan, C., Rao, K., Vaughan, A., Moon, R. 1995. Flavonoids as DNA Topoisomerase Antagonists and Poisons: Structure-Activity Relationships. <i>J Natural Products</i> , 58: 217-225. |
| Tyrosinase-Inhibitor | ID50=230 uM |
| Uterotrophic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. |
| Vasodilator | |
| cAMP-Phosphodiesterase-Inhibitor | |
| iNOS-Inhibitor | IC50=<15 uM |
| iNOS-Inhibitor | IC50=13.9 uM |

| | | | | | |
|----------|-------------------------|---------|---------|-------|---|
| LEAD | Plant | 0.08 | 4.0 | -0.45 | * |
| LF | Plant | -- | -- | | * |
| LIMONENE | Fruit Essent. Oil | 10000.0 | 60100.0 | -1.07 | * |

Activities (60)

| | |
|---------------------------------------|--|
| AChE-Inhibitor | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. & Physiol.</i> , 23, 1985, 383-8. |
| Acaricide LC100=8 uM | |
| Allelochemical | |
| Allergenic 1/20th carene | |
| Antiacylcholinesterase IC22-26=1.2 mM | |
| Antidiademonic | |
| Antialzheimeran? | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. & Physiol.</i> , 23, 1985, 383-8. |
| Antiasthmatic | |
| Antibacterial | Revista Italiana Eppos, 12: 5, 1994. |
| Anticancer | |
| Antiesophagitic | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory | |
| Antilithic | |
| Antilymphomic | |
| Antimetastatic (Stomach) | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antioesity | |
| Antiseptic | |
| Antispasmodic ED50=0.197 mg/ml | Fitoterapia No.59-1984. |
| Antitumor | |

| | |
|---|--|
| Antitumor (Colon) | |
| Antitumor (Pancreas) | |
| Antitumor (Prostate) | |
| Antitumor (Stomach) | |
| Antiviral | |
| Apoptotic | |
| Bronchoprotectant | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidstat | |
| Chemopreventive | |
| Cholesterolytic | |
| Detoxicant | |
| Enterococontractant | J. Aromatherapy 4: 22. |
| Expectorant | |
| Flavor | |
| Fungiphilic | J. Agric. Food Chem. 43: 2283. |
| Fungistat | |
| GST-Inducer | |
| Herbicide IC50=45 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Histaminic | |
| Immunomodulator | |
| Insecticide 0.37 uM/fly | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Interleukin-6-Inhibitor | |
| Irritant | |
| Lipolytic | |
| Myorelaxant 50 mg/kg | |
| NO-Genic | |
| Nematicide IC=100 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Ornithine-Decarboxylase-Inhibitor ~750 mg/kg (diet) | |
| Ozone-Scavenger | |
| P450-Inducer | |
| Peristaltic | |
| Pesticide | |
| Photosensitizer | Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp. |
| Sedative ED=1-32 mg/kg | Wagner & Wolff, eds. 1977. New Natural Products (RS164.156.176) |
| Transdermal | |

LIMONENE

| | | | |
|---------|----|----|---|
| Seed | -- | -- | * |
| Essent. | | | |
| Oil | | | |

Activities (60)

| | |
|---------------------------------------|--|
| AChE-Inhibitor | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, Oest. Biochem. & Physiol., 23, 1985, 383-8. |
| Acaricide LC100=8 uM | |
| Allelochemical | |
| Allergenic 1/20th carene | |
| Antiacylcholinesterase IC22-26=1.2 mM | |
| Antiadrenomimetic | |
| Antialzheimeran? | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, Oest. Biochem. & Physiol., 23, 1985, 383-8. |
| Antiasthmatic | |
| Antibacterial | Revista Italiana Epos, 12: 5, 1994. |
| Anticancer | |
| Antiesophagitic | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory | |
| Antilithic | |
| Antilymphomic | |
| Antimetastatic (Stomach) | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antioesity | |
| Antiseptic | |
| Antispasmodic ED50=0.197 mg/ml | Fitoterapia No.59-1984. |

| | |
|---|--|
| Antitumor (Breast) | |
| Antitumor (Colon) | |
| Antitumor (Pancreas) | |
| Antitumor (Prostate) | |
| Antitumor (Stomach) | |
| Antiviral | |
| Apoptotic | |
| Bronchoprotectant | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidstat | |
| Chemopreventive | |
| Cholesterolytic | |
| Detoxicant | |
| Enterococontractant | J. Aromatherapy 4: 22. |
| Expectorant | |
| FLavor | |
| Fungiphilic | J. Agric. Food Chem. 43: 2283. |
| Fungistat | |
| GST-Inducer | |
| Herbicide IC50=45 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Histaminic | |
| Immunomodulator | |
| Insecticide 0.37 uM/fly | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Interleukin-6-Inhibitor | |
| Irritant | |
| Lipolytic | |
| Myorelaxant 50 mg/kg | |
| NO-Genic | |
| Nematicide IC=100 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Ornithine-Decarboxylase-Inhibitor ~750 mg/kg (diet) | |
| Ozone-Scavenger | |
| P450-Inducer | |
| Peristaltic | |
| Pesticide | |
| Photosensitizer | Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp. |
| Sedative ED=1-32 mg/kg | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Transdermal | |

LIMONENE Seed 6.0 1470.0 -0.66 *

Activities (60)

| | |
|---------------------------------------|--|
| AChE-Inhibitor | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, Oest. Biochem. & Physiol., 23, 1985, 383-8. |
| Acaricide LC100=8 uM | |
| Allelochemic | |
| Allergenic 1/20th carene | |
| Antiacytcholinesterase IC22-26=1.2 mM | |
| Antiadenomic | |
| Antialzheimeran? | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, Oest. Biochem. & Physiol., 23, 1985, 383-8. |
| Antiasthmatic | |
| Antibacterial | Revista Italiana Eppos, 12: 5, 1994. |
| Anticancer | |
| Antiesophagitic | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory | |
| Antilithic | |
| Antilymphomic | |
| Antimetastatic (Stomach) | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antiobesity | |
| Antiseptic | |
| Antispasmodic ED50=0.197 mg/ml | Fitoterapia No.59-1984. |
| Antitumor | |

| | |
|---|--|
| Antitumor (Colon) | |
| Antitumor (Pancreas) | |
| Antitumor (Prostate) | |
| Antitumor (Stomach) | |
| Antiviral | |
| Apoptotic | |
| Bronchoprotectant | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidstat | |
| Chemopreventive | |
| Cholesterolytic | |
| Detoxicant | |
| Enterococontractant | J. Aromatherapy 4: 22. |
| Expectorant | |
| FLavor | |
| Fungiphilic | J. Agric. Food Chem. 43: 2283. |
| Fungistat | |
| GST-Inducer | |
| Herbicide IC50=45 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Histaminic | |
| Immunomodulator | |
| Insecticide 0.37 uM/fly | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Interleukin-6-Inhibitor | |
| Irritant | |
| Lipolytic | |
| Myorelaxant 50 mg/kg | |
| NO-Genic | |
| Nematicide IC=100 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Ornithine-Decarboxylase-Inhibitor ~750 mg/kg (diet) | |
| Ozone-Scavenger | |
| P450-Inducer | |
| Peristaltic | |
| Pesticide | |
| Photosensitizer | Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp. |
| Sedative ED=1-32 mg/kg | Wagner & Wolff, eds. 1977. New Natural Products (RS164.156.176) |
| Transdermal | |

LIMONENE

Leaf -- 16.0 -0.43 *

Activities (60)

| | |
|---------------------------------------|--|
| AChE-Inhibitor | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, Oest. Biochem. & Physiol., 23, 1985, 383-8. |
| Acaricide LC100=8 uM | |
| Allelochemic | |
| Allergenic 1/20th carene | |
| Antiacylcholinesterase IC22-26=1.2 mM | |
| Antiademonic | |
| Antialzheimeran? | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, Oest. Biochem. & Physiol., 23, 1985, 383-8. |
| Antiasthmatic | |
| Antibacterial | Revista Itiliana Eppos, 12: 5, 1994. |
| Anticancer | |
| Antiesophagitic | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory | |
| Antilithic | |
| Antilymphomic | |
| Antimetastatic (Stomach) | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antiobesity | |
| Antiseptic | |
| Antispasmodic ED50=0.197 mg/ml | Fitoterapia No.59-1984. |
| Antitumor | |

| | |
|---|--|
| Antitumor (Colon) | |
| Antitumor (Pancreas) | |
| Antitumor (Prostate) | |
| Antitumor (Stomach) | |
| Antiviral | |
| Apoptotic | |
| Bronchoprotectant | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidstat | |
| Chemopreventive | |
| Cholesterolytic | |
| Detoxicant | |
| Enterococontractant | J. Aromatherapy 4: 22. |
| Expectorant | |
| FLavor | |
| Fungiphilic | J. Agric. Food Chem. 43: 2283. |
| Fungistat | |
| GST-Inducer | |
| Herbicide IC50=45 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Histaminic | |
| Immunomodulator | |
| Insecticide 0.37 uM/fly | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Interleukin-6-Inhibitor | |
| Irritant | |
| Lipolytic | |
| Myorelaxant 50 mg/kg | |
| NO-Genic | |
| Nematicide IC=100 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Ornithine-Decarboxylase-Inhibitor ~750 mg/kg (diet) | |
| Ozone-Scavenger | |
| P450-Inducer | |
| Peristaltic | |
| Pesticide | |
| Photosensitizer | Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp. |
| Sedative ED=1-32 mg/kg | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Transdermal | |

LINALOL

Leaf -- 0.12 -0.44 *

LINALOOL

Leaf -- 0.12 -0.65 *

Activities (53)

Acaricide C90=<15 u/l
(<15 ppm)

Allergenic

Analgesic

Anesthetic 0.01-1 ug/ml

Antiacyetylcholinesterase

Antiallergic

Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

Antianaphylactic

Antibacterial MIC=1,600 ug/ml

Anticariogenic MIC=1,600 ug/ml

Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105.

Anticolic

Anticonvulsant 200 mg/kg ipr
mus

Antiedemic

Antiglutamaergic

Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

Antihistaminic

Antiinflammatory

Antileukemic IC50=3.5-4.2 ug/ml

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.

Antilymphomic IC50=3.5-4.2 ug/ml

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.

Antimange

Antimite

| | |
|---|--|
| Antiseptic 5 x phenol | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Antishock | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| Antispasmodic | Buchbauer, G., Jirovetz*, L., Nikiforov, A., Remberg, G., Raverdino, V. 1989. Headspace-Analysis and Aroma Compounds of Austrian Hay-Blossoms (<i>Flores Graminis</i> , <i>Graminis Flos</i>) used in Aromatherapy. <i>J. Ess. Oil Res.</i> , 2: 185-191, 1990. |
| Antiviral | |
| Barbituate-Synergist | |
| Bronchorelaxant | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| CNS-Depressant | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidstat | |
| Carminative | |
| Culicide LC50=156-194 mg/l | |
| Cytotoxic | |
| Expectorant | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| FLavor FEMA 2-40 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry Acta Botanica Sinica, 32: 49. |
| Fungicide | |
| GABA-nergic | |
| Hypnotic | |
| Hypothermic | |
| Insecticide LC50=156-194 mg/l | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Zebowitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Larvicide LC50=156-194 mg/l | |
| Mosquitofuge > Deet | |
| Motor-Depressant | Buchbauer et al, e.g. Buchbauer et al. 1993. Therapeutic properties of essential oils and fragrances, Chap.12 in Teranishi, R., Buttery, R.G and Sugisawa, H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |
| Nematicide MLC=1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Perfumery | Merck 11th Edition |
| Pesticide | |
| Prooxidant | Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp. |
| Sedative ED=1-32 mg/kg | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Sedative 200 mg/kg ipr mus (1% as active as diazepam) | |
| Termitifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Trichomonicide LD100=600 ug/ml | |
| Tumor-Promoter | |

| | | | | | |
|---------|-------|------|-------|------|---|
| LITHIUM | Plant | 0.76 | 0.792 | -1.0 | * |
|---------|-------|------|-------|------|---|

Activities (11)

| | |
|-------------------|--|
| AntiPMS | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidepressant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihyperthyroid | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antimanic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antipsychotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antischizophrenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiviral | |
| Cholinergic | |
| Deliriant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Natriuretic | |
| Nephrotoxic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |

| | | | | |
|--------|-------|----|----|---|
| LUTEIN | Shoot | -- | -- | * |
|--------|-------|----|----|---|

Activities (15)

| | |
|-------------------------|--|
| Antiatherosclerotic | |
| Anticancer (Breast) | Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103. |
| Antimaculitic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antinystagmotic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antioxidant | |
| Antiproliferant | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antiradicular | |
| Antiretinitic Optometry | |
| Antitumor (Breast) | Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103. |
| Antitumor (Colon) | |

Prooxidant 5-40 ug/g

Quinone-Reductase-
Inducer 2.5 ug
Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from *Vaccinium myrtillus* (Bilberry) Fruits and Cell Cultures. *Plant Sci.*, 131(1): 95-103.Retinoprotectant
Optometry

Ubiquit

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.**LUTEIN**

Plant -- --

Williamson, E. M. and Evans, F. J., *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.**Activities (15)**

Antithrombotic

Anticancer (Breast)
Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from *Vaccinium myrtillus* (Bilberry) Fruits and Cell Cultures. *Plant Sci.*, 131(1): 95-103.

Antimaculitic

Joseph, J., Nadeau, D. and Underwood, A. 2001. *The Color Code.* Hyperion, NY.

Antinystalopic

Joseph, J., Nadeau, D. and Underwood, A. 2001. *The Color Code.* Hyperion, NY.

Antioxidant

Joseph, J., Nadeau, D. and Underwood, A. 2001. *The Color Code.* Hyperion, NY.

Antiproliferant

Joseph, J., Nadeau, D. and Underwood, A. 2001. *The Color Code.* Hyperion, NY.

Antiradicular

Joseph, J., Nadeau, D. and Underwood, A. 2001. *The Color Code.* Hyperion, NY.

Antiretinitic Optometry

Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from *Vaccinium myrtillus* (Bilberry) Fruits and Cell Cultures. *Plant Sci.*, 131(1): 95-103.

Antitumor (Breast)

Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from *Vaccinium myrtillus* (Bilberry) Fruits and Cell Cultures. *Plant Sci.*, 131(1): 95-103.

Antitumor (Colon)

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

Colorant

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

Prooxidant 5-40 ug/g

Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from *Vaccinium myrtillus* (Bilberry) Fruits and Cell Cultures. *Plant Sci.*, 131(1): 95-103.Quinone-Reductase-
Inducer 2.5 ugMadhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from *Vaccinium myrtillus* (Bilberry) Fruits and Cell Cultures. *Plant Sci.*, 131(1): 95-103.Retinoprotectant
OptometryJeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

Ubiquit

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.**LUTEOLIN-7-APIOSYL-GLUCOSIDE**

Fruit -- -- *

LUTEOLIN-7-APIOSYL-GLUCOSIDE

Seed -- -- *

LUTEOLIN-7-DIGLUCOSIDEPlant -- -- Leung, A.Y., *Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics*, John Wiley & Sons, New York, 1980.**LUTEOLIN-7-O-BETA-D-APIOGLUCOSIDE**

Plant -- -- *

LYSINE

Plant 2190.0 18724.0 1.07 USDA's Ag Handbook 8 and sequelae)

Activities (4)Antialkalotic
Antiherpetic 0.5-3 g/day

Martindale's 29th

Essential
Hypoarginanemic 250 mg/kgJeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.**M-XYLENE**

Leaf -- -- *

MAGNESIUM

Plant 250.0 3160.0 -0.28 *

Activities (65)

AntiCFS

AntiLyme 400-1,000 mg

AntiMS

AntiPMS 400-800 mg/day/wmn/orl

AntiPMS 400-800 mg/day/wmn orl

AntiRaynaud's 280-350 mg/day

Antiaggregant 400 mg/day

AntiAlcoholic

AntiAnginal 400 mg/day

Werbach, M. 1993. *Healing with Food.* Harper Collins, New York, 443 pp.

Antianorectic

Davies, S., and Stewart, A. 1990. *Nutritional Medicine.* Avon Books, New York. 509pp.

Antianxiety 400 mg/day

Werbach, M. 1993. *Healing with Food.* Harper Collins, New York, 443 pp.

Antiarrhythmic 400 mg/day

Antiarthritic

Davies, S., and Stewart, A. 1990. *Nutritional Medicine.* Avon Books, New York. 509pp.

| | |
|--|---|
| Antiatherosclerotic 400 mg/day | |
| Anticephalitic | |
| Anticlimacteric 500-750 mg/day | |
| Anticonvulsant | Facciola, S. 1998. <i>Cornucopia - A Source Book of Edible Plants</i> . Kampong Publications, Vista CA. 713 pp. |
| Anticoronal 400 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reservse insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antidepressant | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antidiabetic 400-800 mg/man/day | |
| Antidysmenorrheic 100 mg 4 x/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antiedometriotic 500 mg/day | |
| Antienterotic | |
| Antiepileptic 450 mg/day | |
| Antifatigue | |
| Antifibromyalgic 200-300 mg 3x/day | |
| Antigastrotic | |
| Antiglaucomic | |
| Antihyperkinetic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antihypertensive | |
| Antihypoglycemic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antiinflammatory 100 mg 4 x/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antisomniac | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antilithic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antimastalgic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antimenopausal 500-750 mg/day | |
| Antimigraine 200 mg/day/man | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antimital-valve-prolapase | |
| Antinephrolytic | |
| Antineurotic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antosteoporotic 500-1,000 mg/day/wmn/orl | |
| Antiplaque 500-1,000 mg/day | |
| Antiretinopathic 400 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reservse insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antispasmodic | |
| Antispasmophilic 500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antistress 500-750 mg/day | |
| Antistroke 400 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reservse insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antisynthetic-X 400 mg/man/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reservse insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Anxiolytic 500-750 mg/day | |
| CNS-Depressant | Facciola, S. 1998. <i>Cornucopia - A Source Book of Edible Plants</i> . Kampong Publications, Vista CA. 713 pp. |
| Calcium-Antagonist | |
| Cardioprotective | |
| Diuretic | |
| Hypocholesterolemic 400 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Hypotensive 260-500 mg/day | |
| Immunomodulator | |
| Insulinogenic 400 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reservse insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Laxative 300-500 mg/day | |
| Litholytic | |
| Myorelaxant 100 mg 4 x/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Neurotransmitter | |
| Tranquillizer 500-750 mg/day | |
| Uterorelaxant 100 mg 4 x/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Vasodilator | |

MALIC-ACID

Root -- -- *

Activities (15)

| | |
|--------------------------------|--------------------|
| Antiatherosclerotic | |
| Antibacterial | |
| Antifibromyalgic 300 mg 3x/day | |
| Antioxidant Synergist | Merck 11th Edition |

| | |
|--|--|
| Antiseptic | Martindale's 29th |
| Antitubercular | |
| Antitumor | Economic & Medicinal Plant Research, 6: 235. |
| Bacteristat | |
| Bruchiphobe | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Hemopoietic | |
| Laxative? | Lawrence Review of Natural Products, Sep-91. |
| Mycobactericide | |
| Pesticide | |
| Sialogogue | Martindale's 29th |
| <hr/> | |
| MANGANESE | Plant 0.5 6.0 -0.65 * |
| Activities (14) | |
| AntiPMS | |
| Antialcoholic | Forest H. Nielsen, USDA, Grand Forks, various publications. |
| Antianemic | Martindale's 28th |
| Antiarthritic | |
| Antidiabetic 3-5 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antidiabetic 10-30 mg/man/day | |
| Antidiscotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidyskinetic | Martindale's 28th |
| Antiepileptic 450 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antosteoporotic | |
| Antiototic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antioxidant | |
| Antisyndrome-X 10-30 mg/man/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reverse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Hypoglycemic 10-30 mg/man/day | |
| <hr/> | |
| MERCURY | Plant 0.004 0.37 -0.48 * |
| Activities (1) | |
| Nephrotoxic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| <hr/> | |
| METHANOL | Leaf -- -- * |
| Activities (2) | |
| AntiHIV EC50=<20 ug/ml | |
| Antidote #NAME? | Martindale's 29th |
| <hr/> | |
| METHIONINE | Plant 150.0 1282.0 -0.36 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| Activities (15) | |
| Anticataract | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antidote (Acetaminophen) 10 g/16hr/man/orl | Martindale's 29th |
| Antidote (Paracetamol) 10 g/16hr/man/orl | Martindale's 29th |
| Antieczemic | |
| Antihepatotic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antioxidant | |
| Antiparkinsonian 1-5 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Emetic | Martindale's 29th |
| Essential | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Glutathionogenic | Martindale's 29th |
| Hepatoprotective | |
| Lipotropic | Merck 11th Edition |
| Urine-Acidifier 200 mg/3x/day/man/orl | Martindale's 28th |
| Urine-Deodorant | Martindale's 29th |
| <hr/> | |
| METHYL-DISULFIDE | Leaf -- -- * |
| METHYL-DISULFIDE | Plant -- -- Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |

| Activities (2) | | | | | |
|--------------------------------------|---------|--|---------|-------|--|
| Anticancer (Esophagus)? | | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | |
| Antitumor (Esophagus)? | | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | |
| MUCILAGE | | | | | |
| | Root | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Activities (3) | | | | | |
| Cancer-Preventive | | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | |
| Demulcent | | | | | |
| Hypocholesterolemic | | | | | |
| MYRCENE | | | | | |
| | Seed | 168.0 | 1680.0 | -0.11 | * |
| Activities (22) | | | | | |
| ACE-Inhibitor 100 ug/ml | | | | | |
| Aldose-Reductase-Inhibitor 100 ug/ml | | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpene from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. | | | |
| Allergenic | | | | | |
| Analgesic | | Kauderer, B., Zamith, H., Paumgartten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. | | | |
| Antibacterial | | | | | |
| Anticonvulsant | | | | | |
| Antimutagenic | | Kauderer, B., Zamith, H., Paumgartten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. | | | |
| Antinitrosaminic | | | | | |
| Antinociceptive 10-20 mg/kg ipr mus | | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. | | | |
| Antinociceptive 20-40 mg/kg scu mus | | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. | | | |
| Antioxidant | | Jim Duke's personal files. | | | |
| Antispasmodic | | Jim Duke's personal files. | | | |
| Chemopreventive | | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | |
| FLavor FEMA 0.5-9 | | Aloe Research Council - Duke write up of non-peer reviewd book by Coats and draft by Henry | | | |
| Fungicide | | | | | |
| Hypothermic | | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. | | | |
| Insectifuge | | | | | |
| Irritant | | Zebowitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. | | | |
| Myorelaxant 100-200 mg/kg | | | | | |
| P450-2B1-Inhibitor IC50=0.14 uM | | | | | |
| Perfumery | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Pesticide | | | | | |
| MYRCENE | | | | | |
| | Seed | -- | 24000.0 | -0.47 | * |
| | Essent. | | | | |
| | Oil | | | | |
| Activities (22) | | | | | |
| ACE-Inhibitor 100 ug/ml | | | | | |
| Aldose-Reductase-Inhibitor 100 ug/ml | | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpene from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. | | | |
| Allergenic | | | | | |
| Analgesic | | Kauderer, B., Zamith, H., Paumgartten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. | | | |
| Antibacterial | | | | | |
| Anticonvulsant | | | | | |
| Antimutagenic | | Kauderer, B., Zamith, H., Paumgartten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. | | | |
| Antinitrosaminic | | | | | |
| Antinociceptive 10-20 mg/kg ipr mus | | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. | | | |
| Antinociceptive 20-40 mg/kg scu mus | | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. | | | |
| Antioxidant | | Jim Duke's personal files. | | | |
| Antispasmodic | | Jim Duke's personal files. | | | |
| Chemopreventive | | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | |
| FLavor FEMA 0.5-9 | | Aloe Research Council - Duke write up of non-peer reviewd book by Coats and draft by Henry | | | |
| Fungicide | | | | | |
| Hypothermic | | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. | | | |

| | |
|---------------------------------|--|
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Myorelaxant 100-200 mg/kg | |
| P450-2B1-Inhibitor IC50=0.14 uM | |
| Perfumery | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |

| | | | | | |
|---------|------|------|-------|-------|---|
| MYRCENE | Leaf | 18.0 | 255.0 | -0.08 | * |
|---------|------|------|-------|-------|---|

Activities (22)

| | |
|--------------------------------------|--|
| ACE-Inhibitor 100 ug/ml | |
| Aldose-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. |
| Allergenic | |
| Analgesic | Kauderer, B., Zamith, H., Paumgarten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. |
| Antibacterial | |
| Anticonvulsant | |
| Antimutagenic | Kauderer, B., Zamith, H., Paumgarten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. |
| Antinitrosaminic | |
| Antinociceptive 10-20 mg/kg ipr mus | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. |
| Antinociceptive 20-40 mg/kg scu'mus | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. |
| Antioxidant | Jim Duke's personal files. |
| Antispasmodic | Jim Duke's personal files. |
| Chemopreventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| FLavor FEMA 0.5-9 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Hypothermic | |
| Insectifuge | |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Myorelaxant 100-200 mg/kg | |
| P450-2B1-Inhibitor IC50=0.14 uM | |
| Perfumery | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |

MYRCENE

| | | | | |
|---------|----|--------|-------|---|
| Fruit | -- | 5200.0 | -1.25 | * |
| Essent. | | | | |
| Oil | | | | |

Activities (22)

| | |
|--------------------------------------|--|
| ACE-Inhibitor 100 ug/ml | |
| Aldose-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. |
| Allergenic | |
| Analgesic | Kauderer, B., Zamith, H., Paumgarten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. |
| Antibacterial | |
| Anticonvulsant | |
| Antimutagenic | Kauderer, B., Zamith, H., Paumgarten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. Environmental and Molecular Mutagenesis 18: 28-34, 1991. |
| Antinitrosaminic | |
| Antinociceptive 10-20 mg/kg ipr mus | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. |
| Antinociceptive 20-40 mg/kg scu mus | Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990. |
| Antioxidant | Jim Duke's personal files. |
| Antispasmodic | Jim Duke's personal files. |
| Chemopreventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| FLavor FEMA 0.5-9 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Hypothermic | |
| Insectifuge | |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Myorelaxant 100-200 mg/kg | |
| P450-2R1-Inhibitor | |

Perfumery Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Pesticide

MYRISTIC-ACID

Seed -- --

Leung, A.Y., *Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics*, John Wiley & Sons, New York, 1980.

Activities (6)

Antioxidant IC71=60

Cancer-Preventive Stitt, P. A. *Why George Should Eat Broccoli*. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Cosmetic Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Hypercholesterolemic Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. *CRC Handbook of Lipids in Human Nutrition*. CRC Press. Boca Raton, FL. 233 pp.)

Lubricant Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Nematicide Nigg, H.N. and Seigler, D.S., eds. 1992. *Phytochemical Resources for Medicine and Agriculture*. Plenum Press, New York. 445 pp.

MYRISTICIN

Seed -- 108000.0 -1.0 *

Essent.
Oil

Activities (31)

Amphetaminogenic

Anesthetic

Antiaggregant IC50=250 uM Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. *Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation*. *J of Ethnopharmacology*, 29: 179-188, 1990.

Antidepressant Jim Duke's personal files.

Antiinflammatory Jim Duke's personal files.

Antioxidant 25-100 mg/kg/orl Jim Duke's personal files.

Antispasmodic Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Antistress ihl Jim Duke's personal files.

Calcium-Antagonist IC50=88 uM

Calcium-Antagonist IC50=63.1 gpg (weak activity)

Cancer-Preventive 10 mg/mus/orl/day Jim Duke's personal files.

Diuretic Tyler, V.E. 1982. *The Honest Herbal*. George F. Stickley Co., Philadelphia PA. 263 pp.

FFlavor FEMA 0.1-10 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Fungicide MIC=20 ug

Hallucinogenic Cooper-Driver, G. A., *Chemical substances in plants toxic to animals*, pp. 213-47 in Rechcigl, M., Jr., ed. *CRC Handbook of Naturally Occurring Food Toxicants*, CRC Press, Boca Raton, 1983, 339 pp.

Hepatotoxic Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. *Herbal Medicine - A Guide for Health-care Professionals*. The Pharmaceutical Press, London. 296pp.

Hypnotic Iwu, M.M. 1993. *Handbook of African Medicinal Plants*. CRC Press, Boca Raton, FL 435 pp.

Hypotensive ihl Jim Duke's personal files.

Insecticide 25 ppm Hostettmann, K., Marston, A., Maillard, M. and Hamburger, M., eds. 1995. *Phytochemistry of Plants Used in Traditional Medicine*. (Proc. Phytochem. Soc. Eur. 37) Oxford Science Publications. New York. 408 pp.

Insecticide-Synergist Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Larvicide 25 ppm

MAO-Inhibitor Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Neurotoxic R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. *This and That: The Essential Pharmacology of Herbs and Spices. Tips* 13:15-20 Huxtable, R.J. 1992b. *The Myth of Benificent Nature. The Risk of Herbal Preparations*. *Anns. Intern. Med.* 117(2):165-6; Huxtable, R.

Oxytocic Wichtl, M. 1984. *Teedrogen. Ein Handbuch fur Apotheker und Arzte*. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp.

Paralytic Oriental Materia Medica (three volumes by Dr. Hsu and collaborators)

Pesticide

Psychoactive R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. *This and That: The Essential Pharmacology of Herbs and Spices. Tips* 13:15-20 Huxtable, R.J. 1992b. *The Myth of Benificent Nature. The Risk of Herbal Preparations*. *Anns. Intern. Med.* 117(2):165-6; Huxtable, R.

Sedative 300 mg/kg ipr Jim Duke's personal files.

Serotonergic 1,000 ppm orl Jim Duke's personal files.

Tachycardic Williamson, E. M. and Evans, F. J., *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Uterotonic Tyler, V.E. 1982. *The Honest Herbal*. George F. Stickley Co., Philadelphia PA. 263 pp.

MYRISTICIN

Root -- -- *

Essent.
Oil

Activities (31)

Amphetaminogenic

Anesthetic

| | |
|--|--|
| | MOST ACTIVE CONSTITUENTS AS INHIBITORS OF PLATELET AGGREGATION. JOF ETHNOPHARMACOLOGY, 29, 179-188, 1990. |
| Antidepressant | Jim Duke's personal files. |
| Antiinflammatory | Jim Duke's personal files. |
| Antioxidant 25-100 mg/kg/orl | Jim Duke's personal files. |
| Antispasmodic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antistress ihl | Jim Duke's personal files. |
| Calcium-Antagonist IC50=88 uM | |
| Calcium-Antagonist IC50=63.1 gpg (weak activity) | |
| Cancer-Preventive 10 mg/mus/orl/day | Jim Duke's personal files. |
| Diuretic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |
| FLavor FEMA 0.1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide MIC=20 ug | |
| Hallucinogenic | Cooper-Driver, G. A., Chemical substances in plants toxic to animals, pp. 213-47 in Rechcigl, M., Jr., ed. CRC Handbook of Naturally Occurring Food Toxicants, CRC Press, Boca Raton, 1983, 339 pp. |
| Hepatotoxic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hypnotic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. |
| Hypotensive ihl | Jim Duke's personal files. |
| Insecticide 25 ppm | Hostettmann, K., Marston, A., Maillard, M. and Hamburger, M., eds. 1995. Phytochemistry of Plants Used in Traditional Medicine. (Proc. Phytochem. Soc. Eur. 37) Oxford Science Publications. New York. 408 pp. |
| Insecticide-Synergist | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Larvicide 25 ppm | |
| MAO-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Neurotoxic | R.J. Hixtable, (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Anns. Intern. Med. 117(2):165-6; Huxtable, R. |
| Oxytocic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Paralytic | Oriental Materia Medica (three volumes by Dr. Hsu and collaborators) |
| Pesticide | |
| Psychoactive | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Anns. Intern. Med. 117(2):165-6; Huxtable, R. |
| Sedative 300 mg/kg ipr | Jim Duke's personal files. |
| Serotonergic 1,000 ppm orl | Jim Duke's personal files. |
| Tachycardic | Williamson, E. M. and Evans, F. J. Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Uterotonic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |

MYRISTICIN Seed 14785.0 19800.0 1.38 *

Activities (31)

| | |
|--|---|
| Amphetaminogenic | |
| Anesthetic | |
| Antiaggregant IC50=250 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. J.of Ethnopharmacology, 29: 179-188, 1990. |
| Antidepressant | Jim Duke's personal files. |
| Antiinflammatory | Jim Duke's personal files. |
| Antioxidant 25-100 mg/kg/orl | Jim Duke's personal files. |
| Antispasmodic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antistress ihl | Jim Duke's personal files. |
| Calcium-Antagonist IC50=88 uM | |
| Calcium-Antagonist IC50=63.1 gpg (weak activity) | |
| Cancer-Preventive 10 mg/mus/orl/day | Jim Duke's personal files. |
| Diuretic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |
| FLavor FEMA 0.1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide MIC=20 ug | |
| Hallucinogenic | Cooper-Driver, G. A., Chemical substances in plants toxic to animals, pp. 213-47 in Rechcigl, M., Jr., ed. CRC Handbook of Naturally Occurring Food Toxicants, CRC Press, Boca Raton, 1983, 339 pp. |
| Hepatotoxic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hypnotic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. |
| Hypotensive ihl | Jim Duke's personal files. |
| Insecticide 25 ppm | Hostettmann, K., Marston, A., Maillard, M. and Hamburger, M., eds. 1995. Phytochemistry of Plants Used in Traditional Medicine. (Proc. Phytochem. Soc. Eur. 37) Oxford Science Publications. New York. 408 pp. |
| Insecticide-Synergist | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Larvicide 25 ppm | |

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| Neurotoxic | Londón. 791 pp. |
| Oxytocic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R. |
| Paralytic | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp. |
| Pesticide | Oriental Materia Medica (three volumes by Dr. Hsu and collaborators) |
| Psychoactive | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R. |
| Sedative 300 mg/kg ipr | Jim Duke's personal files. |
| Serotonergic 1,000 ppm orl | Jim Duke's personal files. |
| Tachycardic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Uterotonic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |

MYRISTICIN

Root -- -- *

Activities (31)

| | |
|--|---|
| Amphetaminogenic | |
| Anesthetic | |
| Antiaggregant IC50=250 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. <i>J. of Ethnopharmacology</i> , 29: 179-188, 1990. |
| Antidepressant | Jim Duke's personal files. |
| Antiinflammatory | Jim Duke's personal files. |
| Antioxidant 25-100 mg/kg/orl | Jim Duke's personal files. |
| Antispasmodic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antistress ihl | Jim Duke's personal files. |
| Calcium-Antagonist IC50=88 uM | |
| Calcium-Antagonist IC50=63.1 gpg (weak activity) | |
| Cancer-Preventive 10 mg/mus/orl/day | Jim Duke's personal files. |
| Diuretic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |
| FLavor FEMA 0.1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
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| Insecticide-Synergist | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Larvicide 25 ppm | |
| MAO-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Neurotoxic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R. |
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| Paralytic | Oriental Materia Medica (three volumes by Dr. Hsu and collaborators) |
| Pesticide | |
| Psychoactive | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R. |
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| Uterotonic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |

MYRISTICIN

Plant 425.0 2550.0 1.0 Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Activities (31)

| | |
|------------------------------|--|
| Amphetaminogenic | |
| Anesthetic | |
| Antiaggregant IC50=250 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. <i>J. of Ethnopharmacology</i> , 29: 179-188, 1990. |
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| Antiinflammatory | Jim Duke's personal files. |
| Antioxidant 25-100 mg/kg/orl | Jim Duke's personal files. |

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| | London. /91 pp. |
| Antistress ihl | Jim Duke's personal files. |
| Calcium-Antagonist IC50=88 uM | |
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| Uterotonic | Tyler, V.E.. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |

MYRISTICIN

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| Fruit | 10000.0 | 7500000.0 | * |
| Essent. | | | |
| Oil | | | |

Activities (31)

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| Amphetaminogenic | |
| Anesthetic | |
| Antiaggregant IC50=250 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. J.of Ethnopharmacology, 29: 179-188, 1990. |
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| FLavor FEMA 0.1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
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| Pesticide | |
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| Uterotonic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |

MYRISTICIN Leaf 131.0 960.0 -0.31 *

Activities (31)

| | |
|--|--|
| Amphetaminogenic | |
| Anesthetic | |
| Antiaggregant IC50=250 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. J. of Ethnopharmacology, 29: 179-188, 1990. |
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| Antiinflammatory | Jim Duke's personal files. |
| Antioxidant 25-100 mg/kg/orl | Jim Duke's personal files. |
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| Calcium-Antagonist IC50=63.1 gpg (weak activity) | |
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| FLavor FEMA 0.1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide MIC=20 ug | |
| Hallucinogenic | Cooper-Driver, G. A., Chemical substances in plants toxic to animals, pp. 213-47 in Rechcigl, M., Jr., ed. CRC Handbook of Naturally Occurring Food Toxicants, CRC Press, Boca Raton, 1983, 339 pp. |
| Hepatotoxic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
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| Hypotensive ihl | Jim Duke's personal files. |
| Insecticide 25 ppm | Hostettmann, K., Marston, A., Maillard, M. and Hamburger, M., eds. 1995. Phytochemistry of Plants Used in Traditional Medicine. (Proc. Phytochem. Soc. Eur. 37) Oxford Science Publications. New York. 408 pp. |
| Insecticide-Synergist | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Larvicide 25 ppm | |
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| Oxytocic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp. |
| Paralytic | Oriental Materia Medica (three volumes by Dr. Hsu and collaborators) |
| Pesticide | |
| Psychoactive | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benign Nature. The Risk of Herbal Preparations. Ann. Intern. Med. 117(2):165-6; Huxtable, R. |
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| Tachycardic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Uterotonic | Tyler, V.E. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |

MYRISTICIN Fruit -- -- *

Activities (31)

| | |
|-------------------------------|--|
| Amphetaminogenic | |
| Anesthetic | |
| Antiaggregant IC50=250 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. J. of Ethnopharmacology, 29: 179-188, 1990. |
| Antidepressant | Jim Duke's personal files. |
| Antiinflammatory | Jim Duke's personal files. |
| Antioxidant 25-100 mg/kg/orl | Jim Duke's personal files. |
| Antispasmodic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antistress ihl | Jim Duke's personal files. |
| Calcium-Antagonist IC50=88 uM | |

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| IC50=63.1 gpg (weak activity) | |
| Cancer-Preventive 10 mg/mus/orl/day | Jim Duke's personal files. |
| Diuretic | Tyler, V.E.. 1982. <i>The Honest Herbal</i> . George F. Stickley Co., Philadelphia PA. 263 pp. |
| FLavor FEMA 0.1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide MIC=20 ug | |
| Hallucinogenic | Cooper-Driver, G. A., <i>Chemical substances in plants toxic to animals</i> , pp. 213-47 in Rechcigl, M., Jr., ed. <i>CRC Handbook of Naturally Occurring Food Toxicants</i> , CRC Press, Boca Raton, 1983, 339 pp. |
| Hepatotoxic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Hypnotic | Iwu, M.M. 1993. <i>Handbook of African Medicinal Plants</i> . CRC Press, Boca Raton, FL 435 pp. |
| Hypotensive ihl | Jim Duke's personal files. |
| Insecticide 25 ppm | Hostettmann, K., Marston, A., Maillard, M. and Hamburger, M., eds. 1995. <i>Phytochemistry of Plants Used in Traditional Medicine</i> . (Proc. Phytochem. Soc. Eur. 37) Oxford Science Publications. New York. 408 pp. |
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| Larvicide 25 ppm | |
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| Neurotoxic | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. <i>This and That: The Essential Pharmacology of Herbs and Spices</i> . <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. <i>The Myth of Benign Nature. The Risk of Herbal Preparations</i> . <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R. |
| Oxytocic | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte</i> . Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp. |
| Paralytic | Oriental Materia Medica (three volumes by Dr. Hsu and collaborators) |
| Pesticide | |
| Psychoactive | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. <i>This and That: The Essential Pharmacology of Herbs and Spices</i> . <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. <i>The Myth of Benign Nature. The Risk of Herbal Preparations</i> . <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R. |
| Sedative 300 mg/kg ipr | Jim Duke's personal files. |
| Serotonergic 1,000 ppm orl | Jim Duke's personal files. |
| Tachycardic | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Uterotonic | Tyler, V.E.. 1982. <i>The Honest Herbal</i> . George F. Stickley Co., Philadelphia PA. 263 pp. |

MYRISTICIN

Leaf -- 141176.0 *

Essent.
Oil

Activities (31)

| | |
|--|---|
| Amphetaminogenic | |
| Anesthetic | |
| Antiaggregant IC50=250 uM | Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. <i>Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation</i> . <i>J. of Ethnopharmacology</i> , 29: 179-188, 1990. |
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| Antiinflammatory | Jim Duke's personal files. |
| Antioxidant 25-100 mg/kg/orl | Jim Duke's personal files. |
| Antispasmodic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antistress ihl | Jim Duke's personal files. |
| Calcium-Antagonist IC50=88 uM | |
| Calcium-Antagonist IC50=63.1 gpg (weak activity) | |
| Cancer-Preventive 10 mg/mus/orl/day | Jim Duke's personal files. |
| Diuretic | Tyler, V.E.. 1982. <i>The Honest Herbal</i> . George F. Stickley Co., Philadelphia PA. 263 pp. |
| FLavor FEMA 0.1-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide MIC=20 ug | |
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| Hepatotoxic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Hypnotic | Iwu, M.M. 1993. <i>Handbook of African Medicinal Plants</i> . CRC Press, Boca Raton, FL 435 pp. |
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| Insecticide 25 ppm | Hostettmann, K., Marston, A., Maillard, M. and Hamburger, M., eds. 1995. <i>Phytochemistry of Plants Used in Traditional Medicine</i> . (Proc. Phytochem. Soc. Eur. 37) Oxford Science Publications. New York. 408 pp. |
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| Larvicide 25 ppm | |
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| Paralytic | Oriental Materia Medica (three volumes by Dr. Hsu and collaborators) |
| Pesticide | |
| Psychoactive | R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. <i>This and That: The Essential Pharmacology of Herbs and Spices</i> . <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. <i>The Myth of Benign Nature. The Risk of Herbal Preparations</i> . <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R. |

| | |
|--|--|
| Sedative 300 mg/kg ipr | Jim Duke's personal files. |
| Serotonergic 1,000 ppm orl | Jim Duke's personal files. |
| Tachycardic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Uterotonic | Tyler, V.E.. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp. |
| MYRISTOLIC-ACID | Seed -- -- Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| N-HEXANAL | Leaf -- 0.4 -1.0 * |
| N-HEXANOL | Leaf -- 0.2 -1.0 * |
| NARINGENIN | Plant -- -- Stitt, Paul. Why George should eat broccoli. |
| Activities (56) | |
| 11B-HSD-Inhibitor | |
| Aldose-Reductase-Inhibitor IC25=1 μ M | Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888. |
| Aldose-Reductase-Inhibitor IC78=10 μ M | Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888. |
| Aldose-Reductase-Inhibitor 100 μ M | Oliveira, T. T., Nagem, T. J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. <i>J Braz Chem Soc</i> , 8(3): 211-213. |
| Aldose-Reductase-Inhibitor 1 ug/mL | Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. <i>Planta Medica</i> 56(3): 254-258. |
| AntiHIV IC35=200 ug/ml | |
| Antiacetylcholinesterase | |
| Antiaflatoxin IC50=12 μ M | |
| Antiaflatoxin IC50=3.37 ppm | |
| Antiaggregant | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antialzheimeran | |
| Antiamnesic | |
| Antiamyloid-Beta | |
| Antibacterial MIC=250-500 ug/ml | <i>Planta Medica</i> , 57: A43, 1991. |
| Anticancer | |
| Antiescherichic | |
| Antiestrogenic | |
| Antifibrotic | |
| Antihepatotoxic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antiherapeutic | Economic & Medicinal Plant Research, 5: 197. |
| Antiinflammatory 20 ppm | |
| Antileukemic IC50=>10 ug/ml | <i>Life Sciences</i> 55: 1061. |
| Antimutagenic ID50=50-100 nM | Maga, J.A. Contribution of Phenolic Compounds to Smoke Flavor. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.13. |
| Antioxidant 7 x quercetin | |
| Antiperistaltic | |
| Antiperoxidative | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antiradicular 7 x quercetin | |
| Antisindnhs IC50=15 ug/ml | |
| Antispasmodic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antistaphylococcic | |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | <i>Fitoterapia</i> No.5-1990. |
| Antiviral IC50=15 ug/ml | |
| Aphidifuge | |
| Aromatase-Inhibitor IC45=1 μ M/ | <i>Journal of Medicinal Food</i> 2: 235.1999. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | |
| Choleretic | |
| Cytochrome-P450-Inhibitor | Pizzorno, J. 1998. Total Wellness. Prima Health, a division of Prima. |
| Decarboxylase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Embryotoxic | |
| Estrogenic EC50=0.1-25 μ M/ | |

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|-----------------------------------|---|
| Fungistat | Weidenborner, M., Hindorf, H., Jha, H.C., and Tsotsonos, P. 1989. Antifungal Activity of Flavonoids Against Storage Fungi of the Genus Aspergillus. <i>Phytochemistry</i> . 29(4): 1103-1105. |
| Hepatoprotective IC50=12 uM | |
| Hepatoprotective IC50=3.37 ppm | |
| Neuroprotective | |
| P450-Inhibitor | |
| Pesticide | |
| Serotonin-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| TNF-alpha-Inhibitor IC50=14.41 uM | |
| Teratogenic | |
| Topoisomerase-I-Inhibitor | Santi, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237. |
| Uterotrophic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. |
| cAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |

NARINGENIN

Tissue -- -- *

Activities (56)

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|---------------------------------------|--|
| 11B-HSD-Inhibitor | |
| Aldose-Reductase-Inhibitor IC25=1 uM | Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888. |
| Aldose-Reductase-Inhibitor IC78=10 uM | Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888. |
| Aldose-Reductase-Inhibitor 100 uM | Oliveira, T. T., Nagem, T.J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. <i>J Braz Chem Soc</i> , 8(3): 211-213. |
| Aldose-Reductase-Inhibitor 1 ug/mL | Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. <i>Planta Medica</i> 56(3): 254-258. |
| AntiHIV IC35=200 ug/ml | |
| Antiacetylcholinesterase | |
| Antiaflatoxin IC50=12 uM | |
| Antiaflatoxin IC50=3.37 ppm | |
| Antiaggregant | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antialzheimeran | |
| Antiamnesic | |
| Antiamyloid-Beta | |
| Antibacterial MIC=250-500 ug/ml | <i>Planta Medica</i> , 57: A43, 1991. |
| Anticancer | |
| Antiescherichic | |
| Antiestrogenic | |
| Antifibrotic | |
| Antihepatotoxic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antiherapeutic | Economic & Medicinal Plant Research, 5: 197. |
| Antiinflammatory 20 ppm | |
| Antileukemic IC50=>10 ug/ml | Life Sciences 55: 1061. |
| Antimutagenic ID50=50-100 nM | Maga, J.A. Contribution of Phenolic Compounds to Smoke Flavor. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.13. |
| Antioxidant 7 x quercetin | |
| Antiperistaltic | |
| Antiperoxidative | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antiradicular 7 x quercetin | |
| Antisindhis IC50=15 ug/ml | |
| Antispasmodic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antistaphylococcic | |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | Fitoterapia No.5-1990. |
| Antiviral IC50=15 ug/ml | |
| Aphidifuge | |
| Aromatase-Inhibitor IC45=1 uM/l | Journal of Medicinal Food 2: 235.1999. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |

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|-----------------------------------|---|
| Choleretic | |
| Cytochrome-P450-Inhibitor | Pizzorno, J. 1998. Total Wellness. Prima Health, a division of Prima. |
| Decarboxylase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Embryotoxic | |
| Estrogenic EC50=0.1-25 uM/l | |
| Fungicide 2.5 mM | |
| Fungistat | Weidenborner, M., Hindorf, H., Jha, H.C., and Tsotsonos, P. 1989. Antifungal Activity of Flavonoids Against Storage Fungi of the Genus Aspergillus. Phytochemistry. 29(4): 1103-1105. |
| Hepatoprotective IC50=12 uM | |
| Hepatoprotective IC50=3.37 ppm | |
| Neuroprotective | |
| P450-Inhibitor | |
| Pesticide | |
| Serotonin-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| TNF-alpha-Inhibitor IC50=14.41 uM | |
| Teratogenic | |
| Topoisomerase-I-Inhibitor | Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. Toxicol Ind Health, 14: 223-237. |
| Uterotrophic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. |
| cAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

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|----------------------------------|--|-----|-------|------|---|
| NEOXANTHIN | Shoot | -- | -- | * | |
| Activities (2) | | | | | |
| Colorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Ubiquiot | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| NERAL | | | | | |
| Leaf | -- | 2.9 | -0.39 | * | |
| Activities (4) | | | | | |
| Antibacterial | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. | | | | |
| Antispasmodic | | | | | |
| Pesticide | | | | | |
| Termiticide LD100=5 mg/g | | | | | |
| NIACIN | Plant | 7.0 | 87.0 | 0.14 | * |
| Activities (39) | | | | | |
| Allergenic | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| AntiLyme 50 mg/day | | | | | |
| AntiMeniere's | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. | | | | |
| AntiRaynaud's 1,500-4,000 mg/day | | | | | |
| Antiacerodynic | | | | | |
| Antiallergic 50 mg/2x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| Antialzheimeran | | | | | |
| Antiambyopic | | | | | |
| Antianginal | | | | | |
| Anticataract | | | | | |
| Antichilblain | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Anticonvulsant 3 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| Antidementia | | | | | |
| Antidermatitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antidiabetic | | | | | |
| Antidysphagic | | | | | |
| Antiepileptic 3 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| Antihangover 50 mg | | | | | |
| Antihistaminic 50 mg 2x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| Antihyperactivity 1.5-6 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| Antiinsomnic 1 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| Antineuragic | | | | | |
| Antiparkinsonian 100 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | | |
| Antipellagric | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |

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|--------------------------------------|--|
| Antispasmodic 100 mg 2x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antivertigo | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Circulotonic | |
| Fibrinolytic | |
| Hepatoprotective | |
| Hepatotoxic | |
| Hypocholesterolemic 50-100 mg 3x/day | |
| Hypoglycemic | |
| Hypolipidemic | |
| Sedative | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Serotonergic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Vasodilator | Martindale's 29th |

| | | | | | |
|--------------------------------------|---|-----|-----|------|--|
| NICKEL | Plant | 0.1 | 8.5 | 1.37 | * |
| Activities (3) | | | | | |
| Antiadrenalinic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Anticirrhotic? | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Insulin-Sparing | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| NICOTINAMIDE | Plant | -- | -- | | Stitt, Paul. Why George should eat broccoli. |
| Activities (2) | | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |
| Depressant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| NICOTINIC-ACID | Sprout Seedling | -- | -- | * | |
| Activities (11) | | | | | |
| AntiCrohn's | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antichilblain 50 mg/3x/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antidote (pesticides) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antischizophrenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antithyrotoxic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Choleretic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Hypocholesterolemic 1-6 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Hypoglycemic | | | | | |
| Insulinase-Inhibitor | Economic & Medicinal Plant Research, 6: 157. | | | | |
| Insulinotonic | Economic & Medicinal Plant Research, 6: 157. | | | | |
| Lipolytic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| NICOTINIC-ACID | Tissue Culture | -- | -- | * | |
| Activities (11) | | | | | |
| AntiCrohn's | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antichilblain 50 mg/3x/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antidote (pesticides) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antischizophrenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antithyrotoxic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Choleretic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Hypocholesterolemic 1-6 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Hypoglycemic | | | | | |
| Insulinase-Inhibitor | Economic & Medicinal Plant Research, 6: 157. | | | | |
| Insulinotonic | Economic & Medicinal Plant Research, 6: 157. | | | | |
| Lipolytic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| NICOTINIC-ACID-BETA-D-GLUCOSIDE | Tissue Culture | -- | -- | * | |
| NICOTINIC-ACID-N-ALPHA-L-ARABINOSIDE | Tissue Culture | -- | -- | * | |
| NICOTINIC-ACID-N-BETA-D-GLUCOSIDE | Tissue Culture | -- | -- | * | |

| | | | | | |
|------------------------------|-------------------------|--------|---------|-------|--|
| NITROGEN | Leaf | 4900.0 | 40/00.0 | -0.15 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| O-METHYLBENZYL-ACETATE | Leaf | -- | 0.36 | * | |
| OCTADEC-7-ENOIC-ACID | Fruit | -- | -- | * | |
| OLEIC-ACID | Fruit | -- | -- | * | |
| Activities (18) | | | | | |
| 5-Alpha-Reductase-Inhibitor | | | | | |
| Allergenic | | | | | |
| Alpha-Reductase-Inhibitor | | | | | |
| Anemiagenic | | | | | |
| Antialope cic | | | | | |
| Antiandrogenic | | | | | |
| Antiinflammatory | | | | | |
| IC50=21 uM | | | | | |
| Antileukotriene-D4 | | | | | |
| IC50=21 uM | | | | | |
| Cancer-Preventive | | | | | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Choleretic 5 ml/man | | | | | |
| Dermatitogenic | | | | | |
| FLavor FEMA 1-30 | | | | | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hypocholesterolemic | | | | | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| Insectifuge | | | | | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | | | | | Merck 11th Edition |
| Percutaneostimulant | | | | | Seki, T., Toeda, C., Kawaguchi, T., Junii, K., Sugibayashi, K., and Morimoto, Y. 1990. Enhanced Transdermal Delivery of Zidovudine in Rats and Human Skin. Chem. Pharm. Bull. 38(11): 3086-3089, 1990. |
| Perfumery | | | | | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Propecic | | | | | |
| OLEIC-ACID | Seed | -- | 53000.0 | -0.54 | * |
| Activities (18) | | | | | |
| 5-Alpha-Reductase-Inhibitor | | | | | |
| Allergenic | | | | | |
| Alpha-Reductase-Inhibitor | | | | | |
| Anemiagenic | | | | | |
| Antialope cic | | | | | |
| Antiandrogenic | | | | | |
| Antiinflammatory | | | | | |
| IC50=21 uM | | | | | |
| Antileukotriene-D4 | | | | | |
| IC50=21 uM | | | | | |
| Cancer-Preventive | | | | | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Choleretic 5 ml/man | | | | | |
| Dermatitogenic | | | | | |
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| Insectifuge | | | | | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | | | | | Merck 11th Edition |
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| Perfumery | | | | | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Propecic | | | | | |
| OSTHOL | Fruit Essent. Oil | -- | 56000.0 | * | |
| Activities (15) | | | | | |
| 5-Lipoxygenase-Inhibitor | | | | | |
| Analgesic | | | | | |
| Antiallergic | | | | | |
| Antiinflammatory IC62 | | | | | |
| 800 ppm orl | | | | | |
| Antimalarial IC50=25.1 ug/ml | | | | | Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using Plasmodium falciparum*. Journal of Ethnopharmacology, 15: 201-209, 1986. |
| Antimitotic 5-25 ug/ml | | | | | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. Planta Medica 1987: 526. |
| Antimutagenic | | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

IC₅₀=4 ug/ml
Calcium-Antagonist 40 uM rat

Calcium-Antagonist 100 uM

Cancer-Preventive 5-25 ug/ml Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. *Planta Medica* 1987: 526.

Immunosuppressant

Juvabional

Pesticide

Xanthine-Oxidase-Inhibitor IC₁₀=10 uM

| | | | | | |
|---------|-------|-------|--------|------|--|
| OSTHOLE | Plant | 840.0 | 3975.0 | 1.41 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
|---------|-------|-------|--------|------|--|

Activities (4)

Antimalarial

Calcium-Antagonist

Juvabional

Pesticide

| | | | | | |
|---------------|------|----|-------|------|---|
| OXYPEUCEDANIN | Leaf | -- | 100.0 | -1.0 | * |
|---------------|------|----|-------|------|---|

Activities (6)

Antitumor-Promoter IC₃₂=50 ug/ml

Calcium-Antagonist IC₅₀=1.2 ug/ml

DME-Inhibitor IC₅₀=81 uM Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134.

Fungicide MIC=10 ug

Lipolytic

Mutagenic Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

| | | | | | |
|---------------|-------|-----|------|---|--|
| OXYPEUCEDANIN | Fruit | 7.0 | 26.0 | * | |
|---------------|-------|-----|------|---|--|

Activities (6)

Antitumor-Promoter IC₃₂=50 ug/ml

Calcium-Antagonist IC₅₀=1.2 ug/ml

DME-Inhibitor IC₅₀=81 uM Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 134.

Fungicide MIC=10 ug

Lipolytic

Mutagenic Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

| | | | | | |
|-----------------------|------|----|----|---|--|
| OXYPEUCEDANIN-HYDRATE | Leaf | -- | -- | * | |
|-----------------------|------|----|----|---|--|

Activities (2)

Antihistaminic 25 mg/kg ipr mus

Calcium-Antagonist

| | | | | | |
|--------------------------------|----------------|----|----|---|--|
| P-COUMARATE-COENZYME-1A-LIGASE | Tissue Culture | -- | -- | * | |
|--------------------------------|----------------|----|----|---|--|

| | | | | | |
|-----------------|------|----|----|---|--|
| P-COUMARIC-ACID | Stem | -- | -- | * | |
|-----------------|------|----|----|---|--|

Activities (25)

Aldose-Reductase-Inhibitor 4 ug/ml (weak activity) Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. *Sankyo Kenkyusho Nempo*, 43: 99-110.

Allelopathic Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Antibacterial *Pharmazie*, 46: 156, 1991.

Anticlastogen

Antifertility

Antihepatotoxic Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Antileukemic IC₅₀=25-56 ug/ml Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antinitrosaminic Joseph, J., Nadeau, D. and Underwood, A. 2001. *The Color Code*. Hyperion, NY.

Antioxidant IC₂₄=30 ppm

Antioxidant 1/3 BHA

Antiperoxidant IC₅₀=>100 uM *Planta Medica*, 57: A54, 1991.

| | |
|------------------------------------|--|
| Antispasmodic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Antitumor | |
| Cancer-Preventive | |
| Chemopreventive | |
| Choleretic | |
| Cytotoxic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Diaphoretic? | Lawrence Review of Natural Products, Dec-90. |
| Fungicide | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Lipoxygenase-Inhibitor IC11=5 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690. |
| Pesticide | |
| Prostaglandigenic | |
| Prostaglandin-Synthesis-Inhibitor | |
| Tyrosinase-Inhibitor ID50=3,650 uM | |

| | | | | | |
|----------|-------------------------|----|---------|------|---|
| P-CYMENE | Fruit Essent. Oil | -- | 28000.0 | 0.87 | * |
|----------|-------------------------|----|---------|------|---|

Activities (16)

| | |
|---------------------------------------|--|
| Analgesic | Martindale's 28th |
| Antiacyetylcholinesterase IC40=1.2 mM | |
| Antibacillary | |
| Antibacterial | |
| Antiflu | |
| Antirheumatalgic | Martindale's 28th |
| Antiviral | |
| FLavor FEMA 12-250 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Herbicide IC50=50 uM | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Laxative | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Pesticide | |
| Sedative | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Trichomonicide LD100=50 ug/ml | |

| | | | | | |
|----------|------|----|------|-------|---|
| P-CYMENE | Seed | -- | 34.0 | -0.73 | * |
|----------|------|----|------|-------|---|

Activities (16)

| | |
|---------------------------------------|--|
| Analgesic | Martindale's 28th |
| Antiacyetylcholinesterase IC40=1.2 mM | |
| Antibacillary | |
| Antibacterial | |
| Antiflu | |
| Antirheumatalgic | Martindale's 28th |
| Antiviral | |
| FLavor FEMA 12-250 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Herbicide IC50=50 uM | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Laxative | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Pesticide | |
| Sedative | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Trichomonicide LD100=50 ug/ml | |

| | | | | | |
|----------|------|----|------|------|---|
| P-CYMENE | Leaf | -- | 1.44 | -0.4 | * |
|----------|------|----|------|------|---|

Activities (16)

| | |
|---|--|
| Antiacetylcholinesterase IC40=1.2 mM | |
| Antibacterial | |
| Antibacterial | |
| Antiflu | |
| Antirheumatalgic | Martindale's 28th |
| Antiviral | |
| FLavor FEMA 12-250 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Herbicide IC50=50 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectfuge | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Laxative | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Pesticide | |
| Sedative | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Trichomonicide LD100=50 ug/ml | |

| | | | | |
|------------------------|------|------|------|------|
| P-CYMENE-8-OL | Seed | -- | 28.0 | * |
| P-CYMENE-8-OL | Leaf | -- | 4.38 | -1.0 |
| P-MENTHA-1,3,8-TRIENE | Leaf | -- | -- | * |
| P-MENTHATRIENE | Leaf | -- | 0.36 | * |
| P-MENTHATRIENOLE | Leaf | 0.84 | 18.3 | * |
| P-MENTHYL-ACETOPHENONE | Seed | -- | 31.0 | * |
| P-MENTHYL-ACETOPHENONE | Leaf | -- | 3.66 | * |
| P-METHYL-ACETOPHENONE | Leaf | -- | -- | * |

Activities (2)

| | |
|---------------------|---|
| FLavor FEMA 1-1,000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |

| | | | | |
|---------------|------|----|--------|------|
| P-XYLENE | Leaf | -- | -- | * |
| PALMITIC-ACID | Seed | -- | 5000.0 | -0.6 |

Activities (13)

| | |
|-----------------------------|--|
| 5-Alpha-Reductase-Inhibitor | |
| Antialopetic | |
| Antiandrogenic | |
| Antifibrinolytic | Economic & Medicinal Plant Research, 1: 53. |
| Antioxidant IC40=60 | |
| FLavor FEMA 1 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hemolytic | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| Hypercholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| Lubricant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Nematicide | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Pesticide | |
| Propecic | |
| Soap | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

Activities (13)

| | | | | |
|-----------------------------|---|----|--------|---|
| PALMITIC-ACID | Fruit Essent. Oil | -- | 5000.0 | * |
| 5-Alpha-Reductase-Inhibitor | | | | |
| Antialopetic | | | | |
| Antiandrogenic | | | | |
| Antifibrinolytic | Economic & Medicinal Plant Research, 1: 53. | | | |
| Antioxidant IC40=60 | | | | |

| | |
|----------------------|--|
| Hemolytic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Hypercholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. <i>CRC Handbook of Lipids in Human Nutrition</i> . CRC Press. Boca Raton, FL. 233 pp.) |
| Lubricant | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Nematicide | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Pesticide | |
| Propecic | |
| Soap | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |

| | | | | | |
|------------------|-------|-----|------|-------|------------------------------------|
| PANTOTHENIC-ACID | Plant | 3.0 | 26.0 | -0.22 | USDA's Ag Handbook 8 and sequelae) |
|------------------|-------|-----|------|-------|------------------------------------|

Activities (11)

| | |
|--------------------------------------|--|
| Antiallergic 100-500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antiarthritic 500-2,000 mg/day | |
| Anticephalagic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Anticlaudificant? | Martindale's 29th |
| Antidermatitic | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| Antifatigue | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antihypercholesterolemic 300 mg/meal | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antihielus? | Martindale's 29th |
| Antiinsomniac? | Martindale's 29th |
| Antirheumatitic? | Martindale's 29th |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |

| | | | | | |
|------------------|------|----|------|---|--|
| PENTATRIACONTANE | Leaf | -- | 0.18 | * | |
|------------------|------|----|------|---|--|

Activities (1)

Herbistar

| | | | | | |
|-------------------|----------|----------|----------|-------|--|
| PETROSELINIC-ACID | Seed | 100000.0 | 300000.0 | -1.04 | * |
| PETROSELINIC-ACID | Seed Oil | -- | -- | | * |
| PETROSELINIC-ACID | Fruit | -- | -- | | * |
| PHENETHYL-ALCOHOL | Plant | -- | -- | | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |

Activities (6)

| | |
|---------------|---|
| Antibacterial | Martindale's 29th |
| Antiseptic | Merck 11th Edition |
| FLavor | |
| Perfumery | Merck 11th Edition |
| Pesticide | |
| Sedative | Buchbauer et al, e.g. Buchbauer et al, 1993. Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi, R, Buttery, R.G and Sugisawa, H. Eds. <i>Bioactive Volatile Compounds from Plants</i> . ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |

| | | | | | |
|----------------------------|----------------|----|----|---|--|
| PHENYALANINE-AMMONIA-LYASE | Tissue Culture | -- | -- | * | |
|----------------------------|----------------|----|----|---|--|

| | | | | | |
|---------------------|------|----|----|---|--|
| PHENYL-ACETALDEHYDE | Leaf | -- | -- | * | |
|---------------------|------|----|----|---|--|

Activities (2)

| | |
|--------------------|---|
| FLavor FEMA 0.8-10 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |

| | | | | | |
|-----------------------------|----------------|----|----|---|--|
| PHENYLALANINE-AMMONIA-LYASE | Tissue Culture | -- | -- | * | |
|-----------------------------|----------------|----|----|---|--|

| | | | | | |
|------------|-------|----|----|---|--|
| PHOSPHORUS | Shoot | -- | -- | * | |
|------------|-------|----|----|---|--|

Activities (4)

| | |
|------------------|--|
| Antiosteoporotic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Anxiolytic | |
| Immunostimulant | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |

| | | | | | |
|------------|-------|-------|--------|------|---|
| PHOSPHORUS | Plant | 324.0 | 4100.0 | 0.25 | * |
|------------|-------|-------|--------|------|---|

| | |
|-----------------------------------|---|
| Antiosteoporotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anxiolytic | |
| Immunostimulant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Osteogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| PHYLLOQUINONE | Leaf -- 5.48 0.75 * |
| Activities (5) | |
| Antihemorrhagic 1 mg ims man | Martindale's 28th |
| Fungicide | |
| Hypotensive | |
| Pesticide | |
| Toxic | Martindale's 28th |
| PHYTOSTEROLS | Leaf 50.0 450.0 -0.68 Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| Activities (2) | |
| Antiprostatic | |
| Hypocholesterolemic | |
| POTASSIUM | Plant 4425.0 53833.0 2.23 * |
| Activities (14) | |
| Angiotensin-Receptor-Blocker | |
| Antiarrhythmic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidepressant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antifatigue | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihypertensive | |
| Antispasmodic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antistroke | |
| Anxiolytic | |
| Beta-Blocker | |
| Cardioprotective 3,000-5,000 mg | |
| Cardiotoxic 18,000 mg/man/day | |
| Diuretic | |
| Hypotensive | |
| Vasodilator | |
| PROTEIN | Seed -- 191000.0 -0.38 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| PROTEIN | Plant 20000.0 254096.0 0.66 * |
| PROTOCATECHUIC-ACID | Stem -- -- * |
| Activities (43) | |
| Allergenic | |
| Alpha-Glucosidase-Inhibitor | |
| AntiLegionella | |
| Antiarrhythmic | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 407. |
| Antasthmatic | |
| Antibacterial | Lamikanra, A., Ogundaini, A.O., and Ogungbamila*, F.O. Antibacterial Constituents of Alchornea cordifolia Leaves. Phytotherapy Research 4(5): 198. |
| Anticlastogen | |
| Antihepatotoxic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiperitic | |
| Antiinflammatory | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiischemic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antileukemic | |
| Antimelanogenic ID60=0.5 uM/ml | |
| Antimutagenic | |
| Antiphidic | Economic & Medicinal Plant Research, 5: 363. |
| Antioxidant 2/3 quercetin | |
| Antioxidant 10 x alpha-tocopherol | |

| | |
|--|--|
| Antiperoxidant IC50=>100 uM | Planta Medica, 57: A54, 1991. |
| Antiperoxidant IC75=200 ug/ml | |
| Antiradicular | |
| Antiseptic | |
| Antispasmodic EC50=4.6-17 uM | Ortiz de Urbina, JJ., Martin, M.L., Sevilla, M.A., Montero, M.J., Carron, R., and San Roman, L. Antispasmodic Activity on Rat Smooth Muscle of Polyphenol Compounds Caffeic and Protocathechic Acids. <i>Phytotherapy Research</i> 4(2): 73, 1990. |
| Antitumor (Colon) | |
| Antitumor (Mouth) | |
| Antitumor (Skin) | |
| Antitussive | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 200. |
| Antiviral | |
| Apoptotic | |
| Carcinogenic | |
| Cardioprotective | |
| Chemopreventive 100 ppm orl rat | |
| Fungicide 500 ug/ml | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Glutathione-Depleting | |
| Hepatotoxic | |
| Immunostimulant | Economic & Medicinal Plant Research, 1: 124. |
| Nephrotoxic | |
| Pesticide | |
| Phagocytotic | Economic & Medicinal Plant Research, 1: 124. |
| Prostaglandigenic | |
| Secretagogue | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Tyrosinase-Inhibitor ID60=0.5 uM/ml | |
| Ubiquiot | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |

PSORALEN

Leaf 2.5 33.0 -0.7 *

Activities (31)

| | |
|---------------------------------------|--|
| Antidepressant IC50=15-62 uM | |
| Antileukodermic | Merck 11th Edition |
| Antimitotic | Pandeya, S.N. 1970. Biological Activity of Adamantyl Derivatives. <i>The Indian Journal of Pharmacy</i> , 33: 7. |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antipsoriac | Merck 11th Edition |
| Antispasmodic | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| Antitubercular | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antitumor | |
| Antitumor-Promoter IC13=50 ug/ml | |
| Antiviral | Economic & Medicinal Plant Research, 5: 199. |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Bacteriophagicide | de Vries, D. J. and Blumberg, P. M., Thermoregulatory effects of resiniferatoxin in the mouse: comparison with capsaicin, <i>Life Sciences</i> , 44, 1989, 711-715. |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Contraceptive | |
| Cytotoxic ED50=2-30 ug/ml | |
| Cytotoxic (Breast) ED50=2.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=26.84 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Lung) ED50=30.38 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Fungicide | Merck 11th Edition |
| Genotoxic | Merck 11th Edition |
| Hypotensive | |
| Insecticide | Grenand, P., Moretti, C., and Jacquemin, H. 1987. <i>Pharmacopees Traditionnelles en Guyane</i> . l'ORSTROM, Paris. 569 pp. |
| MAO-A-Inhibitor IC50=15 uM | |
| MAO-B-Inhibitor IC50=62 uM | |
| Mutagenic | Jeffery B. Harborne and H. Baxter. eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost. |

| | |
|---------------------------------------|--|
| Pesticide | |
| Photocarcinogenic | |
| Phototoxic | |
| Phytoalexin | Merck 11th Edition |
| Topoisomerase-II-Inhibitor ID50=10 mM | Hu, C. Q., Lee, K. S. 1992. Coumarins From the Roots of <i>Seseli mairei</i> and Inhibition of DNA Topoisomerase II Activity. <i>Tianran Chanwu Yanjiu Yu Kaifa</i> , 4: 6-10. |

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|----------|----------------|----|----|---|
| PSORALEN | Tissue Culture | -- | -- | * |
|----------|----------------|----|----|---|

Activities (31)

| | |
|---------------------------------------|--|
| Antidepressant IC50=15-62 uM | |
| Antileukodermic | Merck 11th Edition |
| Antimitotic | Pandeya, S.N. 1970. Biological Activity of Adamantyl Derivatives. <i>The Indian Journal of Pharmacy</i> , 33: 7. |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antipsoriac | Merck 11th Edition |
| Antispasmodic | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| Antitubercular | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antitumor | |
| Antitumor-Promoter IC13=50 ug/ml | |
| Antiviral | Economic & Medicinal Plant Research, 5: 199. |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Bacteriophagicide | de Vries, D. J. and Blumberg, P. M., Thermoregulatory effects of resiniferatoxin in the mouse: comparison with capsaicin, <i>Life Sciences</i> , 44, 1989, 711-715. |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Contraceptive | |
| Cytotoxic ED50=2-30 ug/ml | |
| Cytotoxic (Breast) ED50=2.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=26.84 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Lung) ED50=30.38 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Fungicide | Merck 11th Edition |
| Genotoxic | Merck 11th Edition |
| Hypotensive | |
| Insecticide | Grenand, P., Moretti, C., and Jacquemin, H. 1987. <i>Pharmacopees Traditionnelles en Guyane</i> . l'ORSTROM, Paris. 569 pp. |
| MAO-A-Inhibitor IC50=15 uM | |
| MAO-B-Inhibitor IC50=62 | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Photocarcinogenic | |
| Phototoxic | |
| Phytoalexin | Merck 11th Edition |
| Topoisomerase-II-Inhibitor ID50=10 mM | Hu, C. Q., Lee, K. S. 1992. Coumarins From the Roots of <i>Seseli mairei</i> and Inhibition of DNA Topoisomerase II Activity. <i>Tianran Chanwu Yanjiu Yu Kaifa</i> , 4: 6-10. |

| | | | | | |
|----------|-------|-----|------|-------|---|
| PSORALEN | Fruit | 1.0 | 10.0 | -0.46 | * |
|----------|-------|-----|------|-------|---|

Activities (31)

| | |
|----------------------------------|--|
| Antidepressant IC50=15-62 uM | |
| Antileukodermic | Merck 11th Edition |
| Antimitotic | Pandeya, S.N. 1970. Biological Activity of Adamantyl Derivatives. <i>The Indian Journal of Pharmacy</i> , 33: 7. |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antipsoriac | Merck 11th Edition |
| Antispasmodic | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| Antitubercular | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antitumor | |
| Antitumor-Promoter IC13=50 ug/ml | |
| Antiviral | Economic & Medicinal Plant Research, 5: 199. |
| Artemicide LC50=5.93 | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . |

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|---------------------------------------|---|
| Bacteriophagicide | de Vries, D. J. and Blumberg, P. M., Thermoregulatory effects of resiniferatoxin in the mouse: comparison with capsaicin, <i>Life Sciences</i> , 44, 1989, 711-715. |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Contraceptive | |
| Cytotoxic ED50=2-30 ug/ml | |
| Cytotoxic (Breast) ED50=2.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=26.84 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Lung) ED50=30.38 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Fungicide | Merck 11th Edition |
| Genotoxic | Merck 11th Edition |
| Hypotensive | |
| Insecticide | Grenand, P., Moretti, C., and Jacquemin, H. 1987. <i>Pharmacopees Traditionnelles en Guyane</i> . l'ORSTROM, Paris. 569 pp. |
| MAO-A-Inhibitor IC50=15 uM | |
| MAO-B-Inhibitor IC50=62 uM | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Photocarcinogenic | |
| Phototoxic | |
| Phytoalexin | Merck 11th Edition |
| Topoisomerase-II-Inhibitor ID50=10 mM | Hu, C. O., Lee, K. S. 1992. Coumarins From the Roots of <i>Seseli mairei</i> and Inhibition of DNA Topoisomerase II Activity. <i>Tianran Chanwu Yanjiu Yu Kaifa</i> , 4: 6-10. |

PSORALEN

Root -- -- *

Activities (31)

| | |
|------------------------------------|--|
| Antidepressant IC50=15-62 uM | |
| Antileukodermic | Merck 11th Edition |
| Antimitotic | Pandeya, S.N. 1970. Biological Activity of Adamantyl Derivatives. <i>The Indian Journal of Pharmacy</i> , 33: 7. |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antipsoriac | Merck 11th Edition |
| Antispasmodic | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| Antitubercular | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antitumor | |
| Antitumor-Promoter IC13=50 ug/ml | |
| Antiviral | Economic & Medicinal Plant Research, 5: 199. |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Bacteriophagicide | de Vries, D. J. and Blumberg, P. M., Thermoregulatory effects of resiniferatoxin in the mouse: comparison with capsaicin, <i>Life Sciences</i> , 44, 1989, 711-715. |
| Calcium-Antagonist | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Contraceptive | |
| Cytotoxic ED50=2-30 ug/ml | |
| Cytotoxic (Breast) ED50=2.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=26.84 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Lung) ED50=30.38 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Fungicide | Merck 11th Edition |
| Genotoxic | Merck 11th Edition |
| Hypotensive | |
| Insecticide | Grenand, P., Moretti, C., and Jacquemin, H. 1987. <i>Pharmacopees Traditionnelles en Guyane</i> . l'ORSTROM, Paris. 569 pp. |
| MAO-A-Inhibitor IC50=15 uM | |
| MAO-B-Inhibitor IC50=62 uM | |
| Mutagenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Photocarcinogenic | |
| Phototoxic | |
| Phytoalexin | Merck 11th Edition |
| Topoisomerase-II-Inhibitor | Hu, C. O., Lee, K. S. 1992. Coumarins From the Roots of <i>Seseli mairei</i> and Inhibition of DNA Topoisomerase II Activity. <i>Tianran Chanwu Yanjiu Yu Kaifa</i> , 4: 6-10. |

Activities (176)

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|--|--|
| 11B-HSD-Inhibitor | |
| 5-Lipoxygenase-Inhibitor IC50 (μ M)=4 | |
| ATPase-Inhibitor | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Aldehyde-Oxidase-Inhibitor IC70-96=10 μ M | |
| Aldose-Reductase-Inhibitor 100 μ M | |
| Aldose-Reductase-Inhibitor 4 ug/ml | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Aldose-Reductase-Inhibitor IC50=0.84 ug/ml cow | Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation. <i>Chem Pharm Bull</i> 43(8):1385-1387 |
| Aldose-Reductase-Inhibitor IC50=0.344 μ M | Mao, X. M., Zhang, J. Q. 1993. Inhibition of Aldose Reductase by Extracts of Chinese Herbal Medicine. <i>Zhongguo Zhongyao Zazhi</i> , 18(10): 623-624. |
| Allelochemic IC82=1 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Allergenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Analgesic | |
| AntiCrohn's 400 mg/man/3x/day | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| AntiGTF ID50=120 ug/ml | |
| AntiHIV | |
| AntiPMS 500 mg/2x/day/wmn | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiaflatoxin IC50=25 μ M | |
| Antiaflatoxin IC50=7.5 ppm | |
| Antiaggregant IC50=55 μ M | Economic & Medicinal Plant Research, 5: 333. |
| Antiaggregant 30 μ M | |
| Antialaging | |
| Antiallergic IC50=14 μ M | Jim Duke's personal files. |
| Antialzheimeran | |
| Antianaphylactic | Meli, R., Autore, G., Di Carlo, G., Capasso, F. Inhibitory Action of Quercetin on Intestinal Transit in Mice. <i>Phytotherapy Research</i> 4(5): 201, 1990. |
| Antiangiogenic | |
| Antiarthritic | |
| Antiasthmatic IC50=14 μ M | |
| Antiatherosclerotic | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Anticarcinomic (Breast) IC50=1.5 μ M | Medline (post 1990 searches filed in my computer) |
| Anticariogenic ID50=120 ug/ml | |
| Anticataract | |
| Anticolitic 400 mg/man/3x/day | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Anticomplementary | |
| Anticystitic 1,000 mg/day/4 weeks | |
| Antidepressant | |
| Antidermatitic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antidiabetic | |
| Antielastase IC50=0.8 ug/ml | |
| Antiecephalitic | Economic & Medicinal Plant Research, 5: 199. |
| Antiescherichic | |
| Antiestrogenic | |
| Antifeedant IC52=<1,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antifibrosarcomic | |
| Antiflu | Vlietinck, A.J. and Domisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart. |
| Antigastric | Rastite'l'nye Resursy, 21: 85. |
| Antigonadotropic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antihepatotoxic | Joyeux, M., Rolland, A., Fleurentin, J., Mortier, F., and Dorfman, P. 1989. Tert-Butyl Hydroperoxide-Induced Injury in Isolated Rat Hepatocytes: A Model for Studying Anti-Hepatotoxic Crude Drugs. <i>Planta Medica</i> 56(2): 171-173, 1990. |
| Antiherpetic 48-150 ug/ml | |
| Antihistaminic IC50=<10 μ M | |
| Antihydrophobic | Vlietinck, A.J. and Domisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart. |

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|----------------------------------|--|
| Antiinflammatory 20-150 mg/kg | Fitoterapia No.5-1990. |
| Antileishmanic IC50=64 | |
| Antileukemic IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antileukemic IC50=>10 ug/ml | Life Sciences 55: 1061. |
| Antileukemic 5.5-60 uM | |
| Antileukotriene | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antilipoperoxidant IC67=50 | |
| Antimalarial IC50=1-6.4 ug/ml | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antimutagenic ID50=0.62 ug/ml | |
| Antimycarditic | Economic & Medicinal Plant Research, 5: 199. |
| Antinitrosaminic | |
| Antinociceptive | |
| Antioxidant IC96=300 ppm | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antioxidant ED50=2.3 uM | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. Phytotherapy Research, 14(2): 93-98. |
| Antioxidant 4.7 x Vit. E | |
| Antioxidant IC47=10 uM | |
| Antipancreatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antiperiodontal | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiperistaltic | |
| Antipermeability | |
| Antiperoxidant | Planta Medica, 57: A110, 1991. |
| Antipharyngitic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplaque | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplasmoidal IC50=13-64 | |
| Antipodriac | |
| Antipolio | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiproliferant 10 nM | |
| Antiprostanoid | |
| Antiprostatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiradicular IC50=4.6 uM | Planta Medica, 56(6): 695, 1990. |
| Antispasmodic | |
| Antistreptococcic ID50=120 ug/ml | |
| Antithiamin | Phenolic Compounds in Food and Their Effects on Health, 69. |
| Antithrombic | |
| Antitrypanosomic IC50=13 | |
| Antitumor 10 uM | |
| Antitumor (Bladder) | |
| Antitumor (Breast) | |
| Antitumor (Colon) | |
| Antitumor (Lung) | |
| Antitumor (Ovary) | |
| Antitumor (Skin) 20 uM | |
| Antitumor-Promoter | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiulcer | |
| Antiviral IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antiviral 48-150 ug/ml | Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. J. of Natural Products 55(12):1732-1740, 1992. |
| Apoptotic 20-60 uM | |
| Bacteristat 10 mg/ml | |
| Bradycardiac | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| COMT-Inhibitor | |
| COX-2-Inhibitor <40 uM | |
| Calmodulin-Antagonist | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | |
| Capillaroprotective | Merck 11th Edition |
| Carcinogenic 40 000 nm | Nien H.N. and Seinier D.S. eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York 445 pp. |

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|---|--|
| Catabolic | |
| Copper-Chelator | |
| Cyclooxygenase-Inhibitor | |
| Cytochrome-P450-1A2-Inhibitor | |
| Cytotoxic ED50=70 ug/ml | Matsukawa, Y., et al. The Effect of Quercetin and Other Flavonoids on Cell Cycle Progression and Growth of Human Gastric Cancer Cells. <i>Planta Medica</i> , 56(6): 677, 1990. |
| Cytotoxic IC82=100 ug/ml | <i>Planta Medica</i> , 57: A113, 1991. |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Diaphoretic? | Lawrence Review of Natural Products, Dec-90. |
| Differentiator 5.5 uM | |
| Estrogenic 10% genistein | |
| Fungicide | |
| Glucosyl-Transferase-Inhibitor ID50=120 ug/ml | |
| HIV-RT-Inhibitor IC50=<1 ug/ml | Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. <i>Journal of Natural Products</i> , 53(5): 1234-1240, 1990. |
| Hemostat | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Hepatomagenic 5,000 ppm (diet) rat | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Hepatoprotective | |
| Hypoglycemic 100 mg/kg orl'rat | Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989. |
| Inotropic | |
| Insulinogenic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Juvabional | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Larvistat 8,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC11=1.25 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690. |
| Lipoxygenase-Inhibitor IC50=0.1-5 uM | |
| MAO-A-Inhibitor | |
| MMP-9-Inhibitor 20 uM | |
| Mast-Cell-Stabilizer | |
| Metal-Chelator (Copper) | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98. |
| Metalloproteinase-Inhibitor IC50=>42 uM | |
| Mutagenic | |
| NADH-Oxidase-Inhibitor | |
| NEP-Inhibitor IC50=>42 uM | |
| NF-kB-Inhibitor | |
| NO-Inhibitor IC>50=125 uM | |
| NO-Inhibitor IC50=20 uM | |
| NO-Synthase-Inhibitor 5-50 uM | |
| Neuroprotective 5-25 uM | |
| Ornithine-Decarboxylase-Inhibitor <10 uM | |
| P450-Inducer 5 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| P450-Inhibitor 50-100 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| PGE2-Inhibitor | |
| PTK-Inhibitor 0.4-24 uM | |
| Pesticide | |
| Phospholipase-Inhibitor | |
| Plasmodicide | Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp. |
| Proliferant | |
| Prostaglandin-Synthesis-Inhibitor 40 ug/ml | Ibewuike, J. C., Ogungbamila, F. O., Ogundaini, A. O., Okeke, I. N., Bohlin, L. 1997. Antiinflammatory and Antibacterial Activities of C-methylflavonol from <i>Piliostigma thonningii</i> . <i>Phytotherapy Research</i> , 11(4): 281-284. |
| Protein-Kinase-C-Inhibitor | Naim, M., Zehavi, U., Nagy, S., and Rouseff, R.L. Hydroxycinnamic Acids as Off-Flavor Precursors in Citrus Fruits and Their Products. Phenolic Compounds in Food and Their Effects on Health, Ch.14. |
| Quinone-Reductase-Inducer 6 uM | Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216. |
| Quinone-Reductase-Inducer 13 uM | |
| TNF-alpha-Inhibitor IC50=3.11 uM | |
| Teratologic | |
| Topoisomerase-I-Inhibitor IC50=12.8 ug/ml | |
| Topoisomerase-I-Inhibitor IC50=42 uM | |
| Topoisomerase-II- | |

Topoisomerase-II-Inhibitor IC₅₀=23-40 uM

Tumorigenic 0.1% diet orl rat/yr Jim Duke's personal files.

Tyrosinase-Inhibitor ID₅₀=70 uM

Tyrosine-Kinase-Inhibitor Economic & Medicinal Plant Research, 6: 170.

VEGF-Inhibitor

Vasodilator

Xanthine-Oxidase-Inhibitor IC₅₀=>0.4 ug/ml Chem. & Pharm. Bull. 38: 1772.

Xanthine-Oxidase-Inhibitor IC₅₀=10.6 ug/ml

Xanthine-Oxidase-Inhibitor 3.1 uM

CAMP-Phosphodiesterase-Inhibitor Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

iNOS-Inhibitor IC₅₀=20 uM

QUERCETIN

Plant

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Stitt, Paul. Why George should eat broccoli.

Activities (176)

11B-HSD-Inhibitor

5-Lipoxygenase-Inhibitor IC₅₀ (uM)=4

ATPase-Inhibitor Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

Aldehyde-Oxidase-Inhibitor IC₇₀-96=10 uM

Aldose-Reductase-Inhibitor 100 uM

Aldose-Reductase-Inhibitor 4 ug/ml Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.

Aldose-Reductase-Inhibitor IC₅₀=0.84 ug/ml cow Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation.Chem Pharm Bull43(8):1385-1387

Aldose-Reductase-Inhibitor IC₅₀=0.344 uM Mao, X. M., Zhang, J. Q. 1993. Inhibition of Aldose Reductase by Extracts of Chinese Herbal Medicine. Zhongguo Zhongyao Zazhi , 18(10): 623-624.

Allelochemic IC₈₂=1 mM Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.

Allergenic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Analgesic

AntiCrohn's 400 mg/man/3x/day Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

AntiGTF ID₅₀=120 ug/ml

AntiHIV

AntiPMs 500 mg/2x/day/wmn Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antiaflatoxin IC₅₀=25 uM

Antiaflatoxin IC₅₀=7.5 ppm

Antiaggregant IC₅₀=55 uM Economic & Medicinal Plant Research, 5: 333.

Antiaggregant 30 uM

Antiaging

Antiallergic IC₅₀=14 uM Jim Duke's personal files.

Antialzheimeran

Antianaphylactic Meli, R., Autore, G., Di Carlo, G., Capasso, F. Inhibitory Action of Quercetin on Intestinal Transit in Mice. Phytotherapy Research 4(5): 201, 1990.

Antiangiogenic

Antiarthritic

Antiasthmatic IC₅₀=14 uM

Antiatherosclerotic

Antibacterial Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Anticarcinomic (Breast) IC₅₀=1.5 uM Medline (post 1990 searches filed in my computer)

Anticariogenic ID₅₀=120 ug/ml

Anticataract

Anticolitic 400 mg/man/3x/day Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Anticomplementary

Anticystic 1,000 mg/day/4 weeks

Antidepressant

Antidermatitic Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antidiabetic

| | |
|----------------------------------|--|
| Antinecephalitic | Economic & Medicinal Plant Research, 5: 199. |
| Antiescherichic | |
| Antiestrogenic | |
| Antifeedant IC52=<1,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antifibrosarcomic | |
| Antiflu | Vlietinck, A.J. and Domisse, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart. |
| Antigastric | Rastite'nye Resursy, 21: 85. |
| Antigonadotropic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antihepatotoxic | Joyeux, M., Rolland, A., Fleurentin, J., Mortier, F., and Dorfman, P. 1989. Tert-Butyl Hydroperoxide-Induced Injury in Isolated Rat Hepatocytes: A Model for Studying Anti-Hepatotoxic Crude Drugs. <i>Planta Medica</i> 56(2): 171-173, 1990. |
| Antiherpetic 48-150 ug/ml | |
| Antihistaminic IC50=<10 uM | |
| Antihydrophobic | Vlietinck, A.J. and Domisse, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart. |
| Antihypertensive | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory 20-150 mg/kg | Fitoterapia No.5-1990. |
| Antileishmanic IC50=64 | |
| Antileukemic IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antileukemic IC50=>10 ug/ml | Life Sciences 55: 1061. |
| Antileukemic 5.5-60 uM | |
| Antileukotriene | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antilipoperoxidant IC67=50 | |
| Antimalarial IC50=1-6.4 ug/ml | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antimutagenic ID50=0.62 ug/ml | |
| Antimyocarditic | Economic & Medicinal Plant Research, 5: 199. |
| Antinitrosaminic | |
| Antinociceptive | |
| Antioxidant IC96=300 ppm | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antioxidant ED50=2.3 uM | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from Ballota nigra L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98. |
| Antioxidant 4.7 x Vit. E | |
| Antioxidant IC47=10 uM | |
| Antipancreatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antiperiodontal | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiperistaltic | |
| Antipermeability | |
| Antiperoxidant | <i>Planta Medica</i> , 57: A110, 1991. |
| Antipharyngitic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplaque | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplasmodial IC50=13-64 | |
| Antipodriac | |
| Antipolio | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiproliferant 10 nM | |
| Antiprostanoid | |
| Antiprostatitic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiradicular IC50=4.6 uM | <i>Planta Medica</i> , 56(6): 695, 1990. |
| Antispasmodic | |
| Antistreptococcic ID50=120 ug/ml | |
| Antithiamin | Phenolic Compounds in Food and Their Effects on Health, 69. |
| Antithrombic | |
| Antitrypanosomic IC50=13 | |
| Antitumor 10 uM | |
| Antitumor (Bladder) | |
| Antitumor (Breast) | |
| Antitumor (Colon) | |
| Antitumor (Lung) | |
| Antitumor (Ovary) | |

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| Antitumor-Promoter | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiulcer | |
| Antiviral IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antiviral 48-150 ug/ml | Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992. |
| Apoptotic 20-60 uM | |
| Bacteristat 10 mg/ml | |
| Bradycardiac | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| COMT-Inhibitor | |
| COX-2-Inhibitor <40 uM | |
| Calmodulin-Antagonist | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | |
| Capillariprotective | Merck 11th Edition |
| Carcinogenic 40,000 ppm (diet) mus | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Catabolic | |
| Copper-Chelator | |
| Cyclooxygenase-Inhibitor | |
| Cytochrome-P450-1A2-Inhibitor | |
| Cytotoxic ED50=70 ug/ml | Matsukawa, Y., et al. The Effect of Quercetin and Other Flavonoids on Cell Cycle Progression and Growth of Human Gastric Cancer Cells. <i>Planta Medica</i> , 56(6): 677, 1990. |
| Cytotoxic IC82=100 ug/ml | <i>Planta Medica</i> , 57: A113, 1991. |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Diaphoretic? | Lawrence Review of Natural Products, Dec-90. |
| Differentiator 5.5 uM | |
| Estrogenic 10% genistein | |
| Fungicide | |
| Glucosyl-Transferase-Inhibitor ID50=120 ug/ml | |
| HIV-RT-Inhibitor IC50=<1 ug/ml | Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. <i>Journal of Natural Products</i> , 53(5): 1234-1240, 1990. |
| Hemostat | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| Hepatomagenic 5,000 ppm (diet) rat | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Hepatoprotective | |
| Hypoglycemic 100 mg/kg orl rat | Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989. |
| Inotropic | |
| Insulinogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Juvabional | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Larvistat 8,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC11=<1.25 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690. |
| Lipoxygenase-Inhibitor IC50=0.1-5 uM | |
| MAO-A-Inhibitor | |
| MMP-9-Inhibitor 20 uM | |
| Mast-Cell-Stabilizer | |
| Metal-Chelator (Copper) | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98. |
| Metalloproteinase-Inhibitor IC50=>42 uM | |
| Mutagenic | |
| NADH-Oxidase-Inhibitor | |
| NEP-Inhibitor IC50=>42 uM | |
| NF-kB-Inhibitor | |
| NO-Inhibitor IC>50=125 uM | |
| NO-Inhibitor IC50=20 uM | |
| NO-Synthase-Inhibitor 5-50 uM | |
| Neuroprotective 5-25 uM | |
| Ornithine-Decarboxylase-Inhibitor <10 uM | |
| P450-Inducer 5 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| P450-Inhibitor 50-100 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| PGE2-Inhibitor | |
| PTK-Inhibitor 0.4-24 uM | |
| Pesticide | |

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|---|---|
| Plasmodicide | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Proliferant | |
| Prostaglandin-Synthesis-Inhibitor 40 ug/ml | Ibewuike, J. C., Ogungbamila, F. O., Ogundaini, A. O., Okeke, I. N., Bohlin, L. 1997. Antiinflammatory and Antibacterial Activities of C-methylflavonol from <i>Piliostigma thonningii</i> . <i>Phytotherapy Research</i> , 11(4): 281-284. |
| Protein-Kinase-C-Inhibitor | Naim, M., Zehavi, U., Nagy, S., and Rouseff, R.L. Hydroxycinnamic Acids as Off-Flavor Precursors in Citrus Fruits and Their Products. Phenolic Compounds in Food and Their Effects on Health, Ch.14. |
| Quinone-Reductase-Inducer 6 uM | Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216. |
| Quinone-Reductase-Inducer 13 uM | |
| TNF-alpha-Inhibitor IC50=3.11 uM | |
| Teratologic | |
| Topoisomerase-I-Inhibitor IC50=12.8 ug/ml | |
| Topoisomerase-I-Inhibitor IC50=42 uM | |
| Topoisomerase-II-Inhibitor IC50=1-6.9 ug/ml | |
| Topoisomerase-II-Inhibitor IC50=23-40 uM | |
| Tumorigenic 0.1% diet oral rat/yr | Jim Duke's personal files. |
| Tyrosinase-Inhibitor ID50=70 uM | |
| Tyrosine-Kinase-Inhibitor | Economic & Medicinal Plant Research, 6: 170. |
| VEGF-Inhibitor | |
| Vasodilator | |
| Xanthine-Oxidase-Inhibitor IC50=>0.4 ug/ml | Chem. & Pharm. Bull. 38: 1772. |
| Xanthine-Oxidase-Inhibitor IC50=10.6 ug/ml | |
| Xanthine-Oxidase-Inhibitor 3.1 uM | |
| cAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| iNOS-Inhibitor IC50=20 uM | |

QUERCETIN

| Tissue Culture | -- | -- | * |
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Activities (176)

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| 11B-HSD-Inhibitor | |
| 5-Lipoxygenase-Inhibitor IC50 (uM)=4 | |
| ATPase-Inhibitor | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Aldehyde-Oxidase-Inhibitor IC70-96=10 uM | |
| Aldose-Reductase-Inhibitor 100 uM | |
| Aldose-Reductase-Inhibitor 4 ug/ml | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Aldose-Reductase-Inhibitor IC50=0.84 ug/ml cow | Okada,Y,et.al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens' Aldose Reductase and Rabbit Platelet Aggrégation.Chem Pharm Bull43(8):1385-1387 |
| Aldose-Reductase-Inhibitor IC50=0.344 uM | Mao, X. M., Zhang, J. Q. 1993. Inhibition of Aldose Reductase by Extracts of Chinese Herbal Medicine. <i>Zhongguo Zhongyao Zazhi</i> , 18(10): 623-624. |
| Allelochemical IC82=1 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Allergenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Analgesic | |
| AntiCrohn's 400 mg/man/3x/day | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| AntiGTF ID50=120 ug/ml | |
| AntiHIV | |
| AntiPMS 500 mg/2x/day/wmn | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiaflatoxin IC50=25 uM | |
| Antiaflatoxin IC50=7.5 ppm | |
| Antiaggregant IC50=55 uM | Economic & Medicinal Plant Research, 5: 333. |
| Antiaggregant 30 uM | |
| Antiaging | |
| Antiallergic IC50=14 uM | Jim Duke's personal files. |
| Antialzheimeran | |
| Antianaphylactic | Meli, R., Autore, G., Di Carlo, G., Capasso, F. Inhibitory Action of Quercetin on Intestinal Transit in Mice. <i>Phytotherapy Research</i> 4(5): 201, 1990. |
| Antiangiogenic | |

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| Antiasthmatic | IC50=14 uM |
| Antiatherosclerotic | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Anticarcinomic (Breast) IC50=1.5 uM | Medline (post 1990 searches filed in my computer) |
| Anticariogenic ID50=120 ug/ml | |
| Anticataract | |
| Anticolitic 400 mg/man/3x/day | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Anticomplementary | |
| Anticystitic 1,000 mg/day/4 weeks | |
| Antidepressant | |
| Antidermatitic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antidiabetic | |
| Antielastase IC50=0.8 ug/ml | |
| Antiecephalitic | Economic & Medicinal Plant Research, 5: 199. |
| Antiescherichic | |
| Antiestrogenic | |
| Antifeedant IC52=<1,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antifibrosarcomic | |
| Antiflu | Vlietinck, A.J. and Domisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research.</i> Wiss. Verlag. Stuttgart. |
| Antigastric | Rastite l'nye Resursy, 21: 85. |
| Antigonadotropic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Antihepatotoxic | Joyeux, M., Rolland, A., Fleurentin, J., Mortier, F., and Dorfman, P. 1989. Tert-Butyl Hydroperoxide-Induced Injury in Isolated Rat Hepatocytes: A Model for Studying Anti-Hepatotoxic Crude Drugs. <i>Planta Medica</i> 56(2): 171-173, 1990. |
| Antiherpetic 48-150 ug/ml | |
| Antihistaminic IC50=<10 uM | |
| Antihydrophobic | Vlietinck, A.J. and Domisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research.</i> Wiss. Verlag. Stuttgart. |
| Antihypertensive | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs.</i> CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory 20-150 mg/kg | Fitoterapia No.5-1990. |
| Antileishmanic IC50=64 | |
| Antileukemic IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antileukemic IC50=>10 ug/ml | Life Sciences 55: 1061. |
| Antileukemic 5.5-60 uM | |
| Antileukotriene | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antilipoperoxidant IC67=50 | |
| Antimalarial IC50=1-6.4 ug/ml | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antimutagenic ID50=0.62 ug/ml | |
| Antimycarditic | Economic & Medicinal Plant Research, 5: 199. |
| Antinitrosaminic | |
| Antinociceptive | |
| Antioxidant IC96=300 ppm | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507 ACS, Washington 402 pp. |
| Antioxidant ED50=2.3 uM | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98. |
| Antioxidant 4.7 x Vit. E | |
| Antioxidant IC47=10 uM | |
| Antipancreatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code.</i> Hyperion, NY. |
| Antiperiodontal | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiperistaltic | |
| Antipermeability | |
| Antiperoxidant | Planta Medica, 57: A110, 1991. |
| Antipharyngitic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplaque | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplasmodial IC50=13-64 | |
| Antipodriac | |
| Antipolio | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiproliferant 10 nM | |

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|---|--|
| Antiprostatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiradicular IC50=4.6 uM | <i>Planta Medica</i> , 56(6): 695, 1990. |
| Antispasmodic | |
| Antistreptococcic ID50=120 ug/ml | |
| Antithiamin | Phenolic Compounds in Food and Their Effects on Health, 69. |
| Antithrombic | |
| Antitypanosomal IC50=13 | |
| Antitumor 10 uM | |
| Antitumor (Bladder) | |
| Antitumor (Breast) | |
| Antitumor (Colon) | |
| Antitumor (Lung) | |
| Antitumor (Ovary) | |
| Antitumor (Skin) 20 uM | |
| Antitumor-Promoter | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiulcer | |
| Antiviral IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antiviral 48-150 ug/ml | Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992. |
| Apoptotic 20-60 uM | |
| Bacteristat 10 mg/ml | |
| Bradycardiac | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| COMT-Inhibitor | |
| COX-2-Inhibitor <40 uM | |
| Calmodulin-Antagonist | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | |
| Capillariprotective | Merck 11th Edition |
| Carcinogenic 40,000 ppm (diet) mus | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Catabolic | |
| Copper-Chelator | |
| Cyclooxygenase-Inhibitor | |
| Cytochrome-P450-1A2-Inhibitor | |
| Cytotoxic ED50=70 ug/ml | Matsukawa, Y., et al. The Effect of Quercetin and Other Flavonoids on Cell Cycle Progression and Growth of Human Gastric Cancer Cells. <i>Planta Medica</i> , 56(6): 677, 1990. |
| Cytotoxic IC82=100 ug/ml | <i>Planta Medica</i> , 57: A113, 1991. |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Diaphoretic? | Lawrence Review of Natural Products, Dec-90. |
| Differentiator 5.5 uM | |
| Estrogenic 10% genistein | |
| Fungicide | |
| Glucosyl-Transferase-Inhibitor ID50=120 ug/ml | |
| HIV-RT-Inhibitor IC50=<1 ug/ml | Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. <i>Journal of Natural Products</i> , 53(5): 1234-1240, 1990. |
| Hemostat | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Hepatomagenic 5,000 ppm (diet) rat | Phenolic Compounds in Food and Their Effects on Health. <i>Antioxidants & Cancer Prevention</i> . Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Hepatoprotective | |
| Hypoglycemic 100 mg/kg or rat | Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989. |
| Inotropic | |
| Insulinogenic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Juvabional | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Larvistat 8,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC11=1.25 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690. |
| Lipoxygenase-Inhibitor IC50=0.1-5 uM | |
| MAO-A-Inhibitor | |
| MMP-9-Inhibitor 20 uM | |
| Mast-Cell-Stabilizer | |
| Metal-Chelator (Copper) | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98. |
| Metalloproteinase-Inhibitor IC50=>42 uM | |

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|---|---|
| NADH-Oxidase-Inhibitor | |
| NEP-Inhibitor IC50=>42 uM | |
| NF-kB-Inhibitor | |
| NO-Inhibitor IC>50=125 uM | |
| NO-Inhibitor IC50=20 uM | |
| NO-Synthase-Inhibitor 5-50 uM | |
| Neuroprotective 5-25 uM | |
| Ornithine-Decarboxylase-Inhibitor <10 uM | |
| P450-Inducer 5 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| P450-Inhibitor 50-100 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| PGE2-Inhibitor | |
| PTK-Inhibitor 0.4-24 uM | |
| Pesticide | |
| Phospholipase-Inhibitor | |
| Plasmodicide | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Proliferant | |
| Prostaglandin-Synthesis-Inhibitor 40 ug/ml | Ibewuike, J. C., Ogungbamila, F. O., Ogundaini, A. O., Okeke, I. N., Bohlin, L. 1997. Antiinflammatory and Antibacterial Activities of C-methylflavonol from <i>Piliostigma thonningii</i> . <i>Phytotherapy Research</i> , 11(4): 281-284. |
| Protein-Kinase-C-Inhibitor | Naim, M., Zehavi, U., Nagy, S., and Rouseff, R.L. Hydroxycinnamic Acids as Off-Flavor Precursors in Citrus Fruits and Their Products. Phenolic Compounds in Food and Their Effects on Health, Ch.14. |
| Quinone-Reductase-Inducer 6 uM | Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216. |
| Quinone-Reductase-Inducer 13 uM | |
| TNF-alpha-Inhibitor IC50=3.11 uM | |
| Teratologic | |
| Topoisomerase-I-Inhibitor IC50=12.8 ug/ml | |
| Topoisomerase-I-Inhibitor IC50=42 uM | |
| Topoisomerase-II-Inhibitor IC50=1-6.9 ug/ml | |
| Topoisomerase-II-Inhibitor IC50=23-40 uM | |
| Tumorigenic 0.1% diet orl rat/yr | Jim Duke's personal files. |
| Tyrosinase-Inhibitor ID50=70 uM | |
| Tyrosine-Kinase-Inhibitor | Economic & Medicinal Plant Research, 6: 170. |
| VEGF-Inhibitor | |
| Vasodilator | |
| Xanthine-Oxidase-Inhibitor IC50=>0.4 ug/ml | Chem. & Pharm. Bull. 38: 1772. |
| Xanthine-Oxidase-Inhibitor IC50=10.6 ug/ml | |
| Xanthine-Oxidase-Inhibitor 3.1 uM | |
| cAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| iNOS-Inhibitor IC50=20 uM | |

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|--------------------------------------|--|-----|------|--------|
| QUINIC-ACID | Root | -- | -- | * |
| Activities (1) | | | | |
| Choleretic | Fitoterapia No.5-1986. | | | |
| RIBOFLAVIN | | | | |
| RIBOFLAVIN | Plant | 1.0 | 13.5 | 0.15 * |
| Activities (15) | | | | |
| AntiLyme 50 mg/day | | | | |
| Antiarabiflavinotic 2-10 mg/day orl | Martindale's 28th | | | |
| Anticarpal-Tunnel 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | |
| Anticataract 15 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. | | | |
| Anticephalitic | | | | |
| Anticervicaldysplastic 1.6-10 mg/day | | | | |
| Anticheilitic | | | | |
| Antidecubitic | | | | |
| Antiglossitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | |
| Antikeratitic | | | | |

| | | |
|-------------------|---|--|
| Antioxidant | | |
| Antipellagic | | |
| Antiphotophobic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. | |

ROSMARINIC-ACID Plant -- -- Stitt, Paul. Why George should eat broccoli.

Activities (57)

| | |
|--|---|
| ABeta-Inhibitor | |
| Adenylate-Cyclase-Inhibitor | |
| Aldose-Reductase-Inhibitor | |
| AntiHIV EC50=40 ug/ml | |
| Antiaggregant | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antiallergic | |
| Antialzheimeran | |
| Antianaphylactic 1-100 mg/kg orl | Int. J. Immunopharmacology. Vol 10: 729, 1988. |
| Antianaphylactic ID50=1 mg/kg ivn rat | |
| Antianaphylactic ID50=10 mg/kg ims rat | |
| Antiatherosclerotic IC50=0.74 uM | |
| Antibacterial | Planta Medica, 55: 663. |
| Anticoagulant | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Anticomplementary 1/2 aspirin | |
| Anticomplementary 20 mg/kg ivn | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Antidepressant | |
| Antiedemic 0.316-3.16 mg/kg ims | Int. J. Immunopharmacology. Vol 10: 729, 1988. |
| Antigonadotropic | |
| Antihemolytic IC70=5-10 um/l | Int. J. Immunopharmacology. Vol 10: 729, 1988. |
| Antihepatotoxic | |
| Antiherapeutic 50 ug/ml | Vlietinck, A.J. and Dommisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart. |
| Antiherapeutic EC50=20 ug/ml | |
| Antihyperthyroid | |
| Antiinflammatory IC~58=1,000 uM | |
| Antiintegrase 10 ug/ml | |
| Antileukotriene | |
| Antilipoperoxidant | |
| Antimutagenic | |
| Antinephritic | |
| Antioxidant EC50=2.7 ug/ml | Parveen, N. 1991. Antifilarial Activity of Vitex negundo Against Setaria cervi. <i>Fitoterapia</i> , 62(2): 163, 1991. |
| Antioxidant 10 uM | |
| Antioxidant (LDL) IC50=0.74 uM | |
| Antiplaque | |
| Antiproliferant | |
| Antiprostaglandin 20 mg/kg ivn | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Antiproteolytic IC50=0.9 mol l | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp.</i> Springer-Verlag, Berlin. |
| Antipulmonotic | Tyler, V.E. 1994. |
| Antiradicular | |
| Antishock | Int. J. Immunopharmacology. Vol 10: 735, 1988. |
| Antithyreotropic | |
| Antithyroid | Jim Duke's personal files. |
| Antiuremic | |
| Antiviral EC50=40 ug/ml | |
| Anxiolytic | |
| Apoptotic | |
| COX-1-Inhibitor IC58=1,000 uM | |
| COX-2-Inhibitor IC>58=1,000 uM | |
| Calcium-Antagonist IC50=1.2 uM rbt | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cytotoxic TC50=100-150 ug/ml | |

Immunomodulator
 Immunostimulant
 Lipoxygenase-Inhibitor
 Neuroprotective
 Pesticide
 Radioprotective

| | | | | | |
|----------|-------|-----|---------|------|--|
| RUBIDIUM | Leaf | 2.2 | 65.0 | 0.89 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| RUTIN | Shoot | -- | 44480.0 | 2.75 | Varnaite, R. 1988. Rutin Content in Capsicum, Capsella, Urtica, Primula, Lepidium, Lactuca, Brassica, Anethum, Beta, Petroselinum, Allium Genera Representatives. <i>Liet Tsr Mokslu Akad Darb Ser C</i> , 4: 29-32. |

Activities (87)

| | |
|---|--|
| 5-HT-Inhibitor | |
| Aldehyde-Oxidase-Inhibitor IC27-52=10 uM | |
| Aldose-Reductase-Inhibitor 100 uM | |
| Aldose-Reductase-Inhibitor 4 ug/ml | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Allelochemical | |
| AntiCVI 270 mg/man/day | |
| Antiaggregant ED50=33 nmol/kg iv | |
| Antiallergic | |
| Antiapoplectic | |
| Antiatherogenic | |
| Antiatherosclerotic | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Anticancer | |
| Anticapillary-Fragility 20-100 mg orl man | Merck 7th Ed. |
| Anticataract | |
| Anticlastogen | |
| Anticonvulsant | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antidementia | Bruneton, J. 1999. <i>Pharmacognosy, Phytochemistry, Medicinal Plants</i> . 2nd Ed. Lavoisier Publishing, Paris. 1119 pp. |
| Antidermatitic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Antidiabetic | Jin, G-Z., Yamagata, Y., and Tomita, K-i. 1989. Structure of Rutin Pentamethanol. <i>Chem. Pharm. Bull.</i> 38(2): 297-300, 1990. |
| Antiedemic 270 mg/day orl man | |
| Antierythemic | |
| Antifeedant | |
| Antiglaucomic 60 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antihematuric | |
| Antihemorrhoidal | |
| Antihepatotoxic | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Antiherpetic | Economic & Medicinal Plant Research, 5: 198. |
| Antihistaminic | |
| Antihypertensive | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory 20 mg/kg | |
| Antimalarial IC50=>100 ug/ml | Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using Plasmodium falciparum*. <i>Journal of Ethnopharmacology</i> , 15: 201-209, 1986. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | |
| Antinephritic | |
| Antinociceptive | |
| Antioxidant IC28=30 ppm | |
| Antioxidant IC50=120 uM | |
| Antioxidant IC54=10 uM | |
| Antiperioxidant IC50=10-20 uM | |
| Antiplatelet | |
| Antiproliferant 50-75 uM/l | |
| Antiprotozoal | |
| Antipurpuric | |
| Antiradicular 9 x quercetin | |
| Antispasmodic | |

| | |
|---|--|
| Antithrombogenic | |
| EC50=500 nM | |
| Antithyroid IC50=68 uM | |
| Antitrypanosomal 100 mg/kg | Planta Medica, 57: A44, 1991. |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | |
| Antivaricose | |
| Antiviral | |
| Apoptotic 75 uM/l | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Capillaroprotective | Merck 11th Edition |
| Catabolic | |
| Chemopreventive | |
| Cytoprotective IC50=3 uM | |
| Estrogenic? | Economic & Medicinal Plant Research, 6: 189. |
| Hemostat | |
| Hepatomagenic 20,000 ppm (diet) rat | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Hepatoprotective 20 mg/kg rat | |
| Hypocholesterolemic | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| Hypotensive | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Immunomodulator | |
| Insecticide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectiphile | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Juvabional | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvistat IC95=4,000-8,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC75=2.5 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690. |
| Mutagenic | Economic & Medicinal Plant Research, 6: 189. |
| Myoprotective | |
| Myorelaxant | Economic & Medicinal Plant Research, 6: 189. |
| Oviposition-Stimulant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| PAF-Inhibitor | |
| Pesticide | |
| Protisticide | |
| Radioprotective | |
| Sunscreen | |
| Topoisomerase-II-Inhibitor IC50=1 ug/ml | Bernard, F. X., Sable, S., Cameron, B., Provost, J., Desnottes, J. F., Crouzet, J., Blanche, F. 1997. Glycosylated Flavones as Selective Inhibitors of Topoisomerase IV. Antimicrobial Agents & Chemotherapy, 41: 992-998. |
| Vasodilator | |
| Vasopressor | |
| CAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

| | | | | | |
|---|---|----|---------|------|---|
| RUTIN | Leaf | -- | 30000.0 | 0.86 | * |
| Activities (87) | | | | | |
| 5-HT-Inhibitor | | | | | |
| Aldehyde-Oxidase-Inhibitor IC27-52=10 uM | | | | | |
| Aldose-Reductase-Inhibitor 100 uM | | | | | |
| Aldose-Reductase-Inhibitor 4 ug/ml | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110. | | | | |
| Allelochemic | | | | | |
| AntiCVI 270 mg/man/day | | | | | |
| Antiaggregant ED50=33 nmol/kg iv | | | | | |
| Antiallergic | | | | | |
| Antiapoplectic | | | | | |
| Antiatherogenic | | | | | |
| Antiatherosclerotic | | | | | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Anticancer | | | | | |
| Anticapillary-Fragility 20-100 mg orl man | Merck 7th Ed. | | | | |

| | |
|---|--|
| Anticlastogen | |
| Anticonvulsant | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antidementia | Bruneton, J. 1999. <i>Pharmacognosy, Phytochemistry, Medicinal Plants</i> . 2nd Ed. Lavoisier Publishing, Paris. 1119 pp. |
| Antidermatitic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Antidiabetic | Jin, G-Z., Yamagata, Y., and Tomita, K-i. 1989. Structure of Rutin Pentamethanol. <i>Chem. Pharm. Bull.</i> 38(2): 297-300, 1990. |
| Antiedemic 270 mg/day orl man | |
| Antierythemic | |
| Antifeedant | |
| Antiglaucomic 60 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antihematuric | |
| Antihemorrhoidal | |
| Antihepatotoxic | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Antiherpetic | Economic & Medicinal Plant Research, 5: 198. |
| Antihistaminic | |
| Antihypertensive | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory 20 mg/kg | |
| Antimalarial IC50=>100 ug/ml | Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using <i>Plasmodium falciparum</i> *. <i>Journal of Ethnopharmacology</i> , 15: 201-209, 1986. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | |
| Antinephritic | |
| Antinociceptive | |
| Antioxidant IC28=30 ppm | |
| Antioxidant IC50=120 uM | |
| Antioxidant IC54=10 uM | |
| Antiperoxidant IC50=10- 20 uM | |
| Antiplatelet | |
| Antiproliferant 50-75 uM/l | |
| Antiprotozoal | |
| Antipurpuric | |
| Antiradicular 9 x quercetin | |
| Antispasmodic | |
| Antisunburn | |
| Antithrombogenic EC50=500 nM | |
| Antithyroid IC50=68 uM | |
| Antitrypanosomal 100 mg/kg | Planta Medica, 57: A44, 1991. |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | |
| Antivaricose | |
| Antiviral | |
| Apoptotic 75 uM/l | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Capillaroprotective | Merck 11th Edition |
| Catabolic | |
| Chemopreventive | |
| Cytoprotective IC50=3 uM | |
| Estrogenic? | Economic & Medicinal Plant Research, 6: 189. |
| Hemostat | |
| Hepatomagenic 20,000 ppm (diet) rat | Phenolic Compounds in Food and Their Effects on Health. <i>Antioxidants & Cancer Prevention</i> . Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507 ACS, Washington 402 pp. |
| Hepatoprotective 20 mg/kg rat | |
| Hypocholesterolemic | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Hypotensive | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Immunomodulator | |
| Insecticide | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Insectiphile | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Juvabional | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvistat IC95=4,000- 8,000 ppm diet | Lydon, J. & Duke, S., <i>The potential of pesticides from plants</i> , pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC75=2.5 mM | Oszmienski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690. |

| | | | | | |
|---|--|--|--|--|--|
| Myoprotective | | | | | |
| Myorelaxant | Economic & Medicinal Plant Research, 6: 189. | | | | |
| Oviposition-Stimulant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| PAF-Inhibitor | | | | | |
| Pesticide | | | | | |
| Protisticide | | | | | |
| Radioprotective | | | | | |
| Sunscreen | | | | | |
| Topoisomerase-II-Inhibitor IC50=1 ug/ml | Bernard, F. X., Sable, S., Cameron, B., Provost, J., Desnottes, J. F., Crouzet, J., Blanche, F. 1997. Glycosylated Flavones as Selective Inhibitors of Topoisomerase IV. Antimicrobial Agents & Chemotherapy, 41: 992-998. | | | | |
| Vasodilator | | | | | |
| Vasopressor | | | | | |
| CAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |

| | | | | | |
|----------|-------------------------|----|---------|-------|---|
| SABINENE | Fruit Essent. Oil | -- | 10400.0 | -0.66 | * |
|----------|-------------------------|----|---------|-------|---|

Activities (5)

| | | | | | |
|------------------|---|--|--|--|--|
| Antibacterial | | | | | |
| Antihelicobacter | | | | | |
| Antiseptic | | | | | |
| Antiulcer | | | | | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |

| | | | | | |
|----------|------|-----|--------|-------|---|
| SABINENE | Seed | 1.0 | 1190.0 | -0.39 | * |
|----------|------|-----|--------|-------|---|

Activities (5)

| | | | | | |
|------------------|---|--|--|--|--|
| Antibacterial | | | | | |
| Antihelicobacter | | | | | |
| Antiseptic | | | | | |
| Antiulcer | | | | | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |

| | | | | | |
|----------|------|----|------|-------|---|
| SABINENE | Leaf | -- | 0.54 | -0.26 | * |
|----------|------|----|------|-------|---|

Activities (5)

| | | | | | |
|------------------|---|--|--|--|--|
| Antibacterial | | | | | |
| Antihelicobacter | | | | | |
| Antiseptic | | | | | |
| Antiulcer | | | | | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |

| | | | | | |
|----------|------------------------|----|---------|-------|---|
| SABINENE | Seed Essent. Oil | -- | 17000.0 | -0.41 | * |
|----------|------------------------|----|---------|-------|---|

Activities (5)

| | | | | | |
|------------------|---|--|--|--|--|
| Antibacterial | | | | | |
| Antihelicobacter | | | | | |
| Antiseptic | | | | | |
| Antiulcer | | | | | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |

| | | | | | |
|-------------|------|-----|-----|-------|---|
| SALICYLATES | Leaf | 0.8 | 4.0 | -0.57 | * |
|-------------|------|-----|-----|-------|---|

Activities (7)

| | |
|------------------|--|
| Antiaggregant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antiinflammatory | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antipyretic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antiuricosuric | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hyperglycemic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hypoglycemic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Uricosuric | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |

| | | | | |
|---------|------|-----|-------|---|
| SANTENE | Seed | 1.0 | 140.0 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic |
|---------|------|-----|-------|---|

| | | | | | |
|--|--|-------|--------|-------|---|
| SANTENE | Fruit Essent. Oil | -- | 2000.0 | * | |
| SAXALIN | Leaf | -- | -- | * | |
| SEDANENOLIDE | Seed | -- | -- | * | |
| Activities (1) | | | | | |
| Sedative | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart.</i> 393 pp. | | | | |
| SELENIUM | Plant | 0.001 | 0.021 | -0.43 | * |
| Activities (60) | | | | | |
| AP-1-Inhibitor 2-50 uM | | | | | |
| Analgesic 200 ug/day | Werbach, M. 1993. <i>Healing with Food.</i> Harper Collins, New York, 443 pp. | | | | |
| Anorexic | Cooper-Driver, G. A., <i>Chemical substances in plants toxic to animals</i> , pp. 213-47 in Rechcigl, M., Jr., ed. <i>CRC Handbook of Naturally Occurring Food Toxicants</i> , CRC Press, Boca Raton, 1983, 339 pp. | | | | |
| AntiHIV | | | | | |
| AntiNF-kB | | | | | |
| Antiacne 200 ug/day | Werbach, M. 1993. <i>Healing with Food.</i> Harper Collins, New York, 443 pp. | | | | |
| Antiaggregant | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiangiogenic 2 uM | | | | | |
| Antiangiogenic 230 ug/kg orl rat | | | | | |
| Antiarthritic | | | | | |
| Antiasthmatic | | | | | |
| Antiatherosclerotic | | | | | |
| Anticataract 400 ug/day | | | | | |
| Anticirrhotic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine.</i> Avon Books, New York. 509pp. | | | | |
| Anticlimacteric 200 ug/day | | | | | |
| Anticorony 200 ug/day | | | | | |
| Antidandruff | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine.</i> Avon Books, New York. 509pp. | | | | |
| Antidepressant 200 ug/day | | | | | |
| Antidote (Mercury) | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine.</i> Avon Books, New York. 509pp. | | | | |
| Antifibrotic 400 ug | | | | | |
| Antigout 200 ug | | | | | |
| Antikeshan | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine.</i> Avon Books, New York. 509pp. | | | | |
| Antileukemic 1.6 mg/kg ipr mus | | | | | |
| Antileukotriene | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antimaculitic | | | | | |
| Antimelanomic 480 ug/kg | | | | | |
| Antimenopausal 200 ug/kg | | | | | |
| Antimetastatic 480 ug/kg | | | | | |
| Antimyalgic 200 ug/day | Werbach, M. 1993. <i>Healing with Food.</i> Harper Collins, New York, 443 pp. | | | | |
| Antioste oarthritis | | | | | |
| Antioxidant 100-200 (-400) ug/man/day | | | | | |
| Antiparkinsonian 200-400 ug/day | | | | | |
| Antiproliferant 2 uM | | | | | |
| Antiradicular 100-200 (-400) ug/man/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance.</i> John Wiley & Sons, New York. 272 pp. \$24.95 | | | | |
| Antirheumatic | | | | | |
| Antisyndrome-X 100-200 (- 400) ug/man/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance.</i> John Wiley & Sons, New York. 272 pp. \$24.95 | | | | |
| Antitumor 100-200 (-400) ug/man/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance.</i> John Wiley & Sons, New York. 272 pp. \$24.95 | | | | |
| Antitumor (Breast) 333.6 ug/day | | | | | |
| Antitumor (Breast) 0.8 mg/kg scu mus | | | | | |
| Antitumor (Breast) 150 ug/kg diet rat | | | | | |
| Antitumor (Breast) 230 ug/kg orl rat | | | | | |
| Antitumor (Lung) 240 ug/kg diet | | | | | |
| Antitumor (Prostate) | | | | | |
| Antitumor (brain) 38-150 ug/kg | | | | | |
| Antiulcerogenic | Rafatullah, S., Tariq, M., Al-Yahya, M.A., Mossa, J.S., and Ageel, A.M. 1989. Evaluation of Turmeric (<i>Curcuma longa</i>) for Gastric and Duodenal Antiulcer Activity in Rats. <i>J. of Ethnopharmacology</i> , 29: 25-34, 1990. | | | | |
| Anxiolytic | | | | | |

| | |
|--|--|
| Cancer-Preventive | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Cardioprotective 200 ug/day | |
| Depressant | Cooper-Driver, G. A., Chemical substances in plants toxic to animals, pp. 213-47 in Rechcigl, M., Jr., ed. CRC Handbook of Naturally Occurring Food Toxicants, CRC Press, Boca Raton, 1983, 339 pp. |
| Fungicide | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Immunomodulator | |
| Immunostimulant 100-200 (-400) ug/man/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| NF-kB-Inhibitor | |
| Ornithine-Decarboxylase-Inhibitor | |
| Pesticide | |
| Polyamine-Synthesis-Inhibitor | |
| Prostaglandin-Sparer | Fujita, T., Nakatani, E., Funaishi, N., Sakuma, S., Fujimoto, Y. Potent inhibition of prostaglandin inactivation in rabbit gastric antral mucosal slices by selenium ions in-vitro. <i>J. Pharm. Pharmacol.</i> 42: 655-657, 1990. |
| Protein-Kinase-C-Inhibitor IC50=2-50 uM | |
| VEGF-Inhibitor | |

SENKYUNOLIDE Root -- 5.0 -1.0 Abstract (See species file)

SESQUIPHELLANDRENE Leaf -- -- *

SHIKIMIC-ACID Root -- -- *

Activities (14)

| | |
|-----------------------------|---|
| Analgesic | |
| Anticancer | |
| Anticonvulsant | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Antioxidant 7 x quercetin | |
| Antiradicular 7 x quercetin | |
| Antispasmodic | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp. |
| Antitumor | |
| Antitumor-Promoter | |
| Bruchifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Cancer-Preventive | |
| Carcinogenic | Merck 11th Edition |
| Ileorelaxant | |
| Mutagenic | |
| Pesticide | |

SILICON Leaf 60.0 1425.0 3.83 ACTA AGRIC SCAND SUPPL 22: 1980

Activities (4)

| | |
|----------------------|--|
| Antiarteriosclerotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antionychotic | |
| Antiosteoporotic | |
| Cardioprotective | |

SILICON Plant 0.3 3.6 -0.52 *

Activities (4)

| | |
|----------------------|--|
| Antiarteriosclerotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antionychotic | |
| Antiosteoporotic | |
| Cardioprotective | |

SILVER Plant 0.19 0.2 *

Activities (3)

| | |
|---------------|-------------------|
| Antibacterial | Martindale's 28th |
| Astringent | |
| Pesticide | |

SODIUM Plant 404.0 5110.0 -0.02 *

Activities (1)

| | |
|--------------|--|
| Hypertensive | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
|--------------|--|

STEARIC-ACID Seed -- -- Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs,

Activities (8)

5-Alpha-Reductase-Inhibitor

Cosmetic

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

FLavor FEMA 2-4,000

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Hypocholesterolemic

Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. *CRC Handbook of Lipids in Human Nutrition.* CRC Press. Boca Raton, FL. 233 pp.)

Lubricant

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Propecic

Suppository

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.**STIGMASTEROL**Sprout
Seedling

20.0

180.0

-0.82

Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. *CRC Handbook of Lipids in Human Nutrition.* CRC Press. Boca Raton, FL. 233 pp.)**Activities (12)**

Antihepatotoxic

Lawrence Review of Natural Products, 1995

Antiinflammatory

Antinociceptive

Antiphidic 2.3 mg ipr mus

Economic & Medicinal Plant Research, 5: 363.

Antioxidant IC33=10 μM

Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in *Artemisia annua*. *Plant Science,* 75: 161-165, 1991.

Artemicide

LC50=110 ppm

Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. *Bioactive Constituents of Melodorum fruticosum.* *Phytochemistry.* 29(5): 1667-1670. 1990.

Cancer-Preventive

Stitt, P. A. *Why George Should Eat Broccoli.* Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Estrogenic

Hypocholesterolemic Nigg, H.N. and Seigler, D.S., eds. 1992. *Phytochemical Resources for Medicine and Agriculture.* Plenum Press, New York. 445 pp.

Ovulant

Sedative

STRONTIUM

Plant

285.0

396.0

1.63

*

SUCCINIC-ACID

Root

--

--

*

Activities (7)

Additive FEMA 200-2,000

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Antifeedant

Jacobson, M., *Glossary of Plant-Derived Insect Deterrents,* CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

Bruchiphobe

Stitt, P. A. *Why George Should Eat Broccoli.* Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Cancer-Preventive

Merck 11th Edition

Dye

Merck 11th Edition

Perfumery

Merck 11th Edition

Pesticide

SUCCINIC-ACID

Plant

--

--

Stitt, Paul. *Why George should eat broccoli.***Activities (7)**

Additive FEMA 200-2,000

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Antifeedant

Jacobson, M., *Glossary of Plant-Derived Insect Deterrents,* CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

Bruchiphobe

Stitt, P. A. *Why George Should Eat Broccoli.* Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Cancer-Preventive

Merck 11th Edition

Dye

Merck 11th Edition

Perfumery

Merck 11th Edition

Pesticide

SUGARS

Plant

7110.0

90000.0

-0.25

*

SULFUR

Plant

380.0

4700.0

0.36

*

Activities (14)

Acarifuge

Martindale's 29th

Antiacne

Werbach, M. 1993. *Healing with Food.* Harper Collins, New York, 443 pp.

Antiarthritic

Martindale's 29th

Antidandruff

Martindale's 29th

Antigrey

Martindale's 29th

Antisteararthritic

Werbach, M. 1993. *Healing with Food.* Harper Collins, New York, 443 pp.

Antiseborrheic

Martindale's 29th

| | |
|--------------|-------------------|
| Comedogenic | Martindale's 29th |
| Keratolytic | Martindale's 29th |
| Laxative | Martindale's 29th |
| Parasiticide | Martindale's 29th |
| Pesticide | |
| Scabicide | Martindale's 29th |

| | | | | |
|---------------|------|----|----|---|
| TARTARIC-ACID | Root | -- | -- | * |
|---------------|------|----|----|---|

Activities (6)

| | |
|------------------------|---|
| Acidifier | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Additive | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Antioxidant Synergist | Martindale's 29th |
| Flavor FEMA 500-10,000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals.</i> VCH Publishers, New York. 3560-4253. |
| Sequestrant | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |

| | | | | |
|---------|-------|----|----|--|
| TAURINE | Plant | -- | -- | Stitt, Paul. Why George should eat broccoli. |
|---------|-------|----|----|--|

Activities (6)

| | |
|---------------------|--|
| Anticorneitic | |
| Antihemolytic | |
| Antioxidant | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardiac | Martindale's 29th |
| Hypocholesterolemic | Martindale's 29th |

| | | | | | |
|---------------|------|----|------|-------|---|
| TERPINEN-4-OL | Leaf | -- | 0.72 | -0.34 | * |
|---------------|------|----|------|-------|---|

Activities (23)

| | |
|--|--|
| Allelopathic | Wright,C.W.(Ed)2002. <i>Medicinal&Aromatic Plants-Industrial Profiles</i> .Artemisia.344pp.Maffei,M.(Ed)2002. <i>Vetiveria.The Genus Vetiveria.</i> Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999. <i>Tea Tree.The Genus Melaleuca.</i> Harwood Acad.Pub.Amsterdam,Netherlands. |
| Antiacyetylcholinesterase IC21-24=1.2 mM | |
| Antiacne | |
| Antiallergic | |
| Antiasthmatic | Chin. J. Tuber. Respir. Dis., 4:203, 1982. |
| Antibacterial | |
| Antioxidant | |
| Antiseptic | Flav. & Frag. J. 9: 129. |
| Antispasmodic | |
| Antitussive | Chin. J. Tuber. Respir. Dis. |
| Antiulcer | |
| Bacteriostatic | Chin. J. Tuber. Respir. Dis. |
| Diuretic 0.1 ml/rat | |
| Fungicide | |
| Herbicide IC50=200 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Herbicide IC50=22 uM | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | |
| Irritant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals.</i> The Pharmaceutical Press, London. 296pp. |
| Nematicide MLC=1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Pesticide | |
| Renoirritant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals.</i> The Pharmaceutical Press, London. 296pp. |
| Spermicide ED100=0.015 | |
| Vulnerary | Lawrence Review of Natural Products, Jan-91. |

| | | | | | |
|-------------|------|-----|-------|-------|---|
| TERPINOLENE | Seed | 6.0 | 700.0 | -0.16 | * |
|-------------|------|-----|-------|-------|---|

Activities (9)

| | |
|------------------|--|
| Allelochemic | |
| Antifeedant | |
| Antinitrosaminic | |
| Antioxidant | |

| | | |
|-------------------|--|---|
| FLavor FEMA 15-60 | pp. | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | |
| Pesticide | | |

| | | | | | |
|-------------|-------------------------|---------|---------|------|---|
| TERPINOLENE | Fruit Essent. Oil | 10000.0 | 50500.0 | 1.41 | * |
|-------------|-------------------------|---------|---------|------|---|

Activities (9)

| | |
|-------------------|--|
| Allelochemical | |
| Antifeedant | |
| Antinitrosaminic | |
| Antioxidant | |
| Deodorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| FLavor FEMA 15-60 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |

| | | | | | |
|-------------|------|------|-------|------|---|
| TERPINOLENE | Leaf | 33.0 | 105.0 | -0.1 | * |
|-------------|------|------|-------|------|---|

Activities (9)

| | |
|-------------------|--|
| Allelochemical | |
| Antifeedant | |
| Antinitrosaminic | |
| Antioxidant | |
| Deodorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| FLavor FEMA 15-60 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |

| | | | | | |
|--------------|------|----|------|------|---|
| TETRADECANAL | Leaf | -- | 3.84 | -1.0 | * |
|--------------|------|----|------|------|---|

| | | | | |
|--------------------------|------|----|----|---|
| TETRAMETHOXYALLYLBENZENE | Seed | -- | -- | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
|--------------------------|------|----|----|---|

| | | | | |
|--------------------------|-------------------------|----|----|---|
| TETRAMETHOXYALLYLBENZENE | Fruit Essent. Oil | -- | -- | * |
|--------------------------|-------------------------|----|----|---|

| | | | | |
|--------------------------|-------|----|----|---|
| TETRAMETHOXYALLYLBENZENE | Fruit | -- | -- | * |
|--------------------------|-------|----|----|---|

| | | | | | |
|---------|-------|----|-----|-------|---|
| THIAMIN | Plant | -- | 7.0 | -0.05 | * |
|---------|-------|----|-----|-------|---|

Activities (31)

| | |
|----------------------------------|--|
| Analgesic 1-4 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| AntiLyme 50 mg | |
| Antialcoholic 50-100 mg/day | |
| Antialzheimeran 100-3,000 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antianorectic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antibackache 1-4 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiberiberi | |
| Anticancer | |
| Anticardiospastic | |
| Anticataract | |
| Anticolitic | |
| Antidecubitic | |
| Antideliriant | |
| Antidementia | |
| Antidyspeptic | |
| Antinecephalopathic | Martindale's 29th |
| Antifatigue | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antigastric | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost. |

| | | | | | |
|-------------------------------|-------|--|--|--|--|
| Antihangover | 50 mg | | | | |
| Antieartburn | | | | | |
| Antiherpetic | | | | | |
| Antimigraine | | | | | |
| Antimyocarditic | | | | | |
| Antineuragic 1-4 g/day | | | | | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antineurasthenic | | | | | |
| Antineuritic | | | | | |
| Antineuropathic 50 mg | | | | | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antipoliomyelic | | | | | |
| Insectifuge 75-150 mg/man/day | | | | | Martindale's 28th |
| Neuroprotective | | | | | |
| Pesticide | | | | | |

| | | | | | |
|----------|-------|-----|------|-------|--|
| THIAMINE | Plant | 0.2 | 2.0 | -0.46 | * |
| THYMOL | Leaf | -- | 32.0 | -0.4 | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |

Activities (71)

| | | | | | |
|-------------------------------------|--|--|--|--|--|
| Acaricide | | | | | |
| Allergenic | | | | | |
| Analgesic | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Ancylostomicide | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Anesthetic | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Ankylostomacide | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Anthelmintic | | | | | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antiacne | | | | | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Antiaggregant IC50=0.75 | | | | | Tramil, 42: 511. |
| Antialzheimeran? | | | | | L. Gracza (1985) as cited by Buchbauer re antiacetylcholinesterase. |
| Antiarthritic | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Antiatherosclerotic IC50=4 uM | | | | | |
| Antibacterial MIC=50-400 ug/ml | | | | | |
| Antibronchitic | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Anticariogenic MIC=200-400 ug/ml | | | | | |
| Anticholinesterase | | | | | L. Gracza (1985) as cited by Buchbauer re antiacetylcholinesterase. |
| Antihalitosis | | | | | American Health, 12(4): 17, 1993. |
| Antiherpetic | | | | | Martindale's 28th |
| Antiinflammatory (=indomethacin) | | | | | |
| Antileptic | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Antimelanomic IC50=120 uM/l | | | | | |
| Antineuritic | | | | | |
| Antioxidant 100 ppm | | | | | Martindale's 28th |
| Antioxidant (LDL) IC50=4 uM | | | | | |
| Antiperiodontic MIC=50-200 ug/ml | | | | | |
| Antiplaque MIC=39-625 ug/ml | | | | | Osawa, K., Matsumoto, T., Maruyama, T., Takiguchi, T., Okuda, K., and Takazoe, I., Studies of the antibacterial activity of plant extracts and their constituents against periodontopathic bacteria, <i>Bull Tokyo Dent. Coll.</i> , 31 (1), 1990, 17-21 |
| Antiradicular EC=60 | | | | | Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. <i>JEO5</i> : 153-8. |
| Antirheumatic | | | | | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antisalmonella | | | | | |
| Antiseptic 20 x phenol | | | | | Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176) |
| Antispasmodic | | | | | |
| Antistaphylococccic | | | | | |
| Antistreptococcic MIC=200-400 ug/ml | | | | | |
| Antitrichinosis 5% | | | | | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |
| Antitussive | | | | | Iwu, M.M. 1993. <i>Handbook of African Medicinal Plants</i> . CRC Press, Boca Raton, FL 435 pp. |
| Ataxigenic | | | | | Zebowitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |

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|---|--|
| Carminative | Yamamoto, A., Umemori, S., and Muranishi, S. 1993. Absorption Enhancement of Intrapulmonary Administered Insulin by Various Absorption Enhancers and Protease Inhibitors in Rats. <i>J. Pharm. Pharmacol.</i> 46: 14-18, 1994. |
| Counterirritant | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Culicide LC50=36-49 mg/l | |
| Cyclooxygenase-Inhibitor (=indomethacin) | |
| Dentifrice | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Deodorant | Martindale's 28th |
| Dermatitigenic | |
| Enterorelaxant | J. Aromatherapy 4: 22. |
| Enterotoxic | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart.</i> 393 pp. |
| Expectorant | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| FLavor FEMA 2-100 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Merck 11th Edition |
| Gastroirritant | Martindale's 29th |
| Gram(+)icide MIC=200-400 ug/ml | |
| Gram(-)icide MIC=50-200 ug/ml | |
| Insecticide LC50=36-49 mg/l | |
| Insecticide 0.22 uM/fly | |
| Insectifuge | |
| Irritant | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Larvicide 10 ppm | Berenbaum, M. R., <i>The natives knew</i> , Chemtech, (May), 1990, 275-279. |
| Larvicide 58 ppm | |
| Larvicide LC50=36-49 mg/l | |
| Molluscicide | |
| Myorelaxant | J. Aromatherapy 4: 22. |
| Nematicide MLC=0.1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Sedative | Zebowitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Sprout-Inhibitor | Duke, J.A.. Personal Communication. |
| Tracheorelaxant | |
| Trichomonicide LD100=25 ug/ml | |
| Urinary-Antiseptic | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Varroacide | |
| Vermicide | Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus. |

| | | | | | |
|-----|-------|-----|------|-------|---|
| TIN | Plant | 1.0 | 14.0 | -0.47 | * |
|-----|-------|-----|------|-------|---|

Activities (4)

| | |
|---------------|-------------------|
| Antiacne | |
| Antibacterial | |
| Pesticide | |
| Taenicide | Martindale's 28th |

| | | | | | |
|----------|-------|-----|-----|-------|---|
| TITANIUM | Plant | 1.0 | 2.0 | -1.48 | * |
|----------|-------|-----|-----|-------|---|

| | | | | | |
|---------|------|----|----|----|---|
| TOLUENE | Leaf | -- | -- | -- | * |
|---------|------|----|----|----|---|

Activities (1)

| | |
|-----------------|-------------------|
| Encephalopathic | Martindale's 29th |
|-----------------|-------------------|

| | | | | | |
|-----------------|------|----|------|----|---|
| TRANS-2-HEXENAL | Leaf | -- | 12.5 | -- | * |
|-----------------|------|----|------|----|---|

Activities (4)

| | |
|--------------------|--|
| FLavor FEMA 0.7-20 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Paramecicide | ANON. 1948-1976. <i>The Wealth of India raw materials</i> . Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Pesticide | |
| Prosticide | ANON. 1948-1976. <i>The Wealth of India raw materials</i> . Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |

| | | | | | |
|-----------------|------|----|-----|----|---|
| TRANS-2-HEXENOL | Leaf | -- | 0.2 | -- | * |
|-----------------|------|----|-----|----|---|

Activities (1)

| | | | | |
|--------------------|----------------|----|----|--|
| TRANS-BETA-OCIMENE | Leaf | -- | -- | * |
| TRANS-BETA-OCIMENE | Plant | -- | -- | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| TRIGONELLINE | Tissue Culture | -- | -- | * |

Activities (15)

| | |
|-----------------------------------|--|
| Anticancer (Cervix) | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Anticancer (Liver) | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antihyperglycemic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. |
| Antimigraine | |
| Antiseptic | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. |
| Antitumor (Cervix) | |
| Antitumor (Liver) | |
| Epidermal-Stimulant | |
| Hypocholesterolemic | |
| Hypoglycemic 500-3,000 mg/man/day | Martindale's 28th |
| Hypoglycemic 50 mg/kg or rat | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Mutagenic | |
| Osmoregulator | |
| Pesticide | |
| Propecic | |

| | | | | |
|---------------|------|----|----|---|
| UMBELLIFERONE | Leaf | -- | -- | * |
|---------------|------|----|----|---|

Activities (22)

| | |
|---|---|
| Aldose-Reductase-Inhibitor IC50=4.8 ug/ml cow | Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation.Chem Pharm Bull43(8):1385-1387 |
| Allelochemical IC94=2 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiedemic | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Antihistaminic | |
| Antiinflammatory | |
| Antimitotic 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. Planta Medica 1987: 526. |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antiprostaglandin | |
| Antiseptic | |
| Antispasmodic | |
| Antistaphylococccic | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. Planta Medica 1987: 526. |
| Candidicide | |
| Choleretic | |
| Fungicide | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Lipoxygenase-Inhibitor | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Photoactive | |
| Sunscreen | Merck 11th Edition |
| Xanthine-Oxidase-Inhibitor | Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livingston, Edinburgh. |

| | | | | |
|-------------|------|----|----|---|
| URONIC-ACID | Root | -- | -- | * |
|-------------|------|----|----|---|

| | | | | |
|--------------|-------|----|----|---|
| VIOLAXANTHIN | Shoot | -- | -- | * |
|--------------|-------|----|----|---|

Activities (2)

| | |
|----------|--|
| Colorant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Ubiquiot | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| | | | | |
|-------|-------|----|----|---|
| VIT-A | Shoot | -- | -- | * |
|-------|-------|----|----|---|

| | | | | |
|---------|-------|----|----|---|
| VIT-B-1 | Shoot | -- | -- | * |
|---------|-------|----|----|---|

VIT-B2

Tissue Culture -- -- *

Activities (11)

| | |
|-------------------------------------|---|
| Antiarabiflavinotic 2-10 mg orl/day | Martindale's 28th |
| Anticarpal-Tunnel 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticataract 15 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticheirotic | |
| Antidecubitic | |
| Antiglossitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antikeratitic | |
| Antimigraine | |
| Antipellagric | |
| Antiphotophobic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |

VIT-B2

Shoot -- -- *

Activities (11)

| | |
|-------------------------------------|---|
| Antiarabiflavinotic 2-10 mg orl/day | Martindale's 28th |
| Anticarpal-Tunnel 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticataract 15 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticheirotic | |
| Antidecubitic | |
| Antiglossitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antikeratitic | |
| Antimigraine | |
| Antipellagric | |
| Antiphotophobic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |

WATER

Plant -- 921000.0 0.64 *

XANTHOTOXIN

Root -- -- *

Activities (43)

| | |
|--|--|
| Antiaflatoxin IC50=2.5 uM | |
| Antiaflatoxin 0.54 ppm | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antidermatitic | Martindale's 29th |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antihistaminic | |
| Antiinflammatory 20 mg/man/day | |
| Antikeratotic | Martindale's 29th |
| Antileucodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antilymphomeric 600 ug/kg +PUVA (extracorporeal) | |
| Antimitotic 5-25 ug/ml | |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of Zanthoxylum americanum. Phytotherapy Research 4(6): 216-219. |
| Antimycotic | Martindale's 29th |
| Antipityriasic | Martindale's 29th |
| Antipuritic | Martindale's 29th |
| Antipsoriac | Martindale's 29th |
| Antiscleromyxoedemic | Martindale's 29th |
| Antispasmodic | |
| Antitumor-Promoter IC24=50 ug/ml | |
| Antivitiligo 20 mg/man/day | |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of Zanthoxylum americanum. Phytotherapy Research 4(6): 216-219. |
| Bufocide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Calcium-Antagonist IC50=551 uM gpg | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. Planta Medica 1987: 526. |
| Cytotoxic ED50=7-29 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of Zanthoxylum americanum. Phytotherapy Research 4(6): 216-219. |

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| LD ₅₀ =7.21 ug/ml | Phytotherapy Research 4(6): 210-213. |
| Cytotoxic (Colon) ED ₅₀ =29.46 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Cytotoxic (Lung) ED ₅₀ =28.99 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Dermatitogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Emetic | |
| Fungicide IC ₈₅ =1,000 ppm | |
| Fungicide IC ₁₀₀ =2,000 ppm | |
| Fungistat EC ₅₀ =21.6 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Hepatoprotective IC ₅₀ =2.5 uM | |
| Hepatoprotective 0.5 ppm | |
| Herbicide | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Hypertrichotic | Martindale's 29th |
| Insecticide | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Lipolytic | |
| Molluscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

XANTHOTOXIN

Plant -- -- *

Activities (43)

| | |
|--|--|
| Antiaflatoxin IC ₅₀ =2.5 uM | |
| Antiaflatoxin 0.54 ppm | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antidermatitic | Martindale's 29th |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antihistaminic | |
| Antiinflammatory 20 mg/man/day | |
| Antikeratotic | Martindale's 29th |
| Antileucodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antilymphomeric 600 ug/kg +PUVA (extracorporeal) | |
| Antimitotic 5-25 ug/ml | |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Antimycotic | Martindale's 29th |
| Antipityriasic | Martindale's 29th |
| Antipruritic | Martindale's 29th |
| Antipsoriac | Martindale's 29th |
| Antiscleromyxoedemic | Martindale's 29th |
| Antispasmodic | |
| Antitumor-Promoter IC ₂₄ =50 ug/ml | |
| Antivitiligo 20 mg/man/day | |
| Artemicide LC ₅₀ =5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Bufocide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Calcium-Antagonist IC ₅₀ =551 uM gpg | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Cytotoxic ED ₅₀ =7-29 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Cytotoxic (Breast) ED ₅₀ =7.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Cytotoxic (Colon) ED ₅₀ =29.46 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Cytotoxic (Lung) ED ₅₀ =28.99 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . Phytotherapy Research 4(6): 216-219. |
| Dermatitogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Emetic | |
| Fungicide IC ₈₅ =1,000 ppm | |
| Fungicide IC ₁₀₀ =2,000 ppm | |
| Fungistat EC ₅₀ =21.6 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Hepatoprotective IC ₅₀ =2.5 | |

| | | | |
|--------------------------|--|--|--|
| Hepatoprotective 0.5 ppm | | | |
| Herbicide | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. | | |
| Hypertrichotic | Martindale's 29th | | |
| Insecticide | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. | | |
| Lipolytic | | | |
| Molluscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | |
| Pesticide | | | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | |

XANTHOTOXIN

| | | | |
|---------|----|----|---|
| Tissue | -- | -- | * |
| Culture | | | |

Activities (43)

| | | | |
|--|--|--|--|
| Antiaflatoxin IC50=2.5 uM | | | |
| Antiaflatoxin 0.54 ppm | | | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | |
| Antidermatitic | Martindale's 29th | | |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. | | |
| Antihistaminic | | | |
| Antiinflammatory 20 mg/man/day | | | |
| Antikeratotic | Martindale's 29th | | |
| Antileucodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | |
| Antilymphomeric 600 ug/kg +PUVA (extracorporeal) | | | |
| Antimitotic 5-25 ug/ml | | | |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. | | |
| Antimycotic | Martindale's 29th | | |
| Antipityriasic | Martindale's 29th | | |
| Antipruritic | Martindale's 29th | | |
| Antipsoriac | Martindale's 29th | | |
| Antiscleromyxoedemic | Martindale's 29th | | |
| Antispasmodic | | | |
| Antitumor-Promoter IC24=50 ug/ml | | | |
| Antivitiligo 20 mg/man/day | | | |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. | | |
| Bufocide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | |
| Calcium-Antagonist IC50=551 uM gpg | | | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. | | |
| Cytotoxic ED50=7-29 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. | | |
| Cytotoxic (Breast) ED50=7.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. | | |
| Cytotoxic (Colon) ED50=29.46 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. | | |
| Cytotoxic (Lung) ED50=28.99 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. | | |
| Dermatitogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | |
| Emetic | | | |
| Fungicide IC85=1,000 ppm | | | |
| Fungicide IC100=2,000 ppm | | | |
| Fungistat EC50=21.6 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | |
| Hepatoprotective IC50=2.5 uM | | | |
| Hepatoprotective 0.5 ppm | | | |
| Herbicide | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. | | |
| Hypertrichotic | Martindale's 29th | | |
| Insecticide | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. | | |
| Lipolytic | | | |
| Molluscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | |
| Pesticide | | | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | |

XANTHOTOXIN

Shoot 3.0 289.0 1.11 *

Activities (43)

| | |
|--|--|
| Antiaflatoxin IC50=2.5 uM | |
| Antiaflatoxin 0.54 ppm | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antidermatitic | Martindale's 29th |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antihistaminic | |
| Antiinflammatory 20 mg/man/day | |
| Antikeratotic | Martindale's 29th |
| Antileucodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antilymphomeric 600 ug/kg +PUVA (extracorporeal) | |
| Antimitotic 5-25 ug/ml | |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antimycotic | Martindale's 29th |
| Antipityriasis | Martindale's 29th |
| Antipruritic | Martindale's 29th |
| Antipsoriac | Martindale's 29th |
| Antiscleromyxoedemic | Martindale's 29th |
| Antispasmodic | |
| Antitumor-Promoter IC24=50 ug/ml | |
| Antivitiligo 20 mg/man/day | |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Bufocide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Calcium-Antagonist IC50=551 uM gpg | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Cytotoxic ED50=7-29 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Breast) ED50=7.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=29.46 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Lung) ED50=28.99 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Dermatitogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Emetic | |
| Fungicide IC85=1,000 ppm | |
| Fungicide IC100=2,000 ppm | |
| Fungistat EC50=21.6 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Hepatoprotective IC50=2.5 uM | |
| Hepatoprotective 0.5 ppm | |
| Herbicide | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Hypertrichotic | Martindale's 29th |
| Insecticide | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Lipolytic | |
| Molluscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

XANTHOTOXIN

Leaf 3.0 15.0 -1.0 *

Activities (43)

| | |
|---------------------------|--|
| Antiaflatoxin IC50=2.5 uM | |
| Antiaflatoxin 0.54 ppm | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antidermatitic | Martindale's 29th |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |

| | |
|--|--|
| Antiinflammatory 20 mg/man/day | |
| Antikeratotic | Martindale's 29th |
| Antileucodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antilymphomeric 600 ug/kg +PUVA (extracorporeal) | |
| Antimitotic 5-25 ug/ml | |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antimycotic | Martindale's 29th |
| Antipityriasic | Martindale's 29th |
| Antipruritic | Martindale's 29th |
| Antipsoriac | Martindale's 29th |
| Antiscleromyxoedemic | Martindale's 29th |
| Antispasmodic | |
| Antitumor-Promoter IC24=50 ug/ml | |
| Antivitiligo 20 mg/man/day | |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Bufoicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Calcium-Antagonist IC50=551 uM gpg | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Cytotoxic ED50=7-29 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
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| Cytotoxic (Colon) ED50=29.46 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Lung) ED50=28.99 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Dermatitogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Emetic | |
| Fungicide IC85=1,000 ppm | |
| Fungicide IC100=2,000 ppm | |
| Fungistat EC50=21.6 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Hepatoprotective IC50=2.5 uM | |
| Hepatoprotective 0.5 ppm | |
| Herbicide | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Hypertrichotic | Martindale's 29th |
| Insecticide | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Lipolytic | |
| Molluscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

XANTHOTOXIN

Fruit -- -- *

Activities (43)

| | |
|--|---|
| Antiaflatoxin IC50=2.5 uM | |
| Antiaflatoxin 0.54 ppm | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antidermatitic | Martindale's 29th |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antihistaminic | |
| Antiinflammatory 20 mg/man/day | |
| Antikeratotic | Martindale's 29th |
| Antileucodermic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antilymphomeric 600 ug/kg +PUVA (extracorporeal) | |
| Antimitotic 5-25 ug/ml | |
| Antimutagenic | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Antimycotic | Martindale's 29th |

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|------------------------------------|---|
| Antipruritic | Martindale's 29th |
| Antipsoriac | Martindale's 29th |
| Antiscleromyxoedemic | Martindale's 29th |
| Antispasmodic | |
| Antitumor-Promoter IC24=50 ug/ml | |
| Antivitiligo 20 mg/man/day | |
| Artemicide LC50=5.93 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Bufocide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Calcium-Antagonist IC50=551 uM gpg | |
| Cancer-Preventive 5-25 ug/ml | Gawron, A. and Glowniak, K. 1987. Cytostatic Activity of Coumarins in vitro. <i>Planta Medica</i> 1987: 526. |
| Cytotoxic ED50=7-29 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Breast) ED50=7.21 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Colon) ED50=29.46 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Cytotoxic (Lung) ED50=28.99 ug/ml | Saqib, Q. N., Hui, Y. H., Anderson, J. E. and McLaughlin, J. L. 1990. Bioactive Furanocoumarins from the Berries of <i>Zanthoxylum americanum</i> . <i>Phytotherapy Research</i> 4(6): 216-219. |
| Dermatitogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Emetic | |
| Fungicide IC85=1,000 ppm | |
| Fungicide IC100=2,000 ppm | |
| Fungistat EC50=21.6 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Hepatoprotective IC50=2.5 uM | |
| Hepatoprotective 0.5 ppm | |
| Herbicide | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v.4, Oryx Press, Phoenix, 1989, 267pp. |
| Hypertrichotic | Martindale's 29th |
| Insecticide | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Lipolytic | |
| Molluscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Piscicide | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |

| ZINC | Plant | -- | -- | * |
|--|--|----|----|---|
| Activities (77) | | | | |
| ACE-Inhibitor | | | | |
| Analgesic | | | | |
| AntiBPH 25-60 mg/day | | | | |
| AntiCrohn's | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | |
| AntiHIV | | | | |
| Antiacne 135 mg/day | | | | |
| Antiacrodermatitic 8-34 mg/day/orl/chd | Martindale's 29th | | | |
| Antialcoholic | | | | |
| Antiallopecic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | |
| Antialzheimeran 50 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | |
| Antiangiogenic | | | | |
| Antianorexic | Martindale's 29th | | | |
| Antiarthritic 50 mg/3x/day/orl/man | | | | |
| Anticanker 100 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | |
| Anticataract 30 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | |
| Anticoeliac | Martindale's 28th | | | |
| Anticold 50 mg | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | |
| Anticolitic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | |
| Anticorony 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 | | | |
| Antidandruff | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | |
| Antidementia | | | | |
| Antidiabetic 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 | | | |
| Antidote (Cadmium) | Let's Live, May 1989. | | | |
| Antidysgeuzic | | | | |

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|--|--|
| Antinecephalopathic | Martindale's 29th |
| Antiepileptic 100 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antifibrotic 30 mg | |
| Antifuruncular 45 mg/3x/day/man | Martindale's 28th |
| Antihangover 15 mg | |
| Antiherpetic? 25-60 mg/day | |
| Antiimpotence | Martindale's 29th |
| Antiinfective 50 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antiinfertility 60 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antiinsomniac | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antileptic | Martindale's 29th |
| Antileukonychic | |
| Antilymphomic | |
| Antimaculitic | |
| Antimetastatic | |
| Antineuropathic | |
| Antinyctalopic | |
| Antidiobesity 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antosteoporotic | |
| Antiperiodontic | |
| Antiplaque | Martindale's 29th |
| Antiprolactin | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiprostatic 50 mg/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antirheumatic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antiseptic 50 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antispare-Tire 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antistomatitic 50 mg/man/3x/day | Martindale's 28th |
| Antisyndrome-X 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antitinnitin 60-120 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antitriglyceride 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antiulcer 50 mg/3x/day/man | Martindale's 28th |
| Antiulcer 88 mg/rat/day/15 days | |
| Antiviral? | Martindale's 29th |
| Astringent | Martindale's 28th |
| Collagenic | |
| Copper-Antagonist | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Deodorant | Martindale's 29th |
| Detoxicant (Alcohol) | |
| Ergogenic | |
| Hypotensive 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Immunomodulator | |
| Immunostimulant | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Immunosuppressant 300 mg/day/6 wks/orl/man | Martindale's 29th |
| Insulinogenic 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Leptogenic 30-60 mg/man/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95 |
| Mucogenic | Li, K.M. Effect of zinc sulphate on acetic acid-induced gastric ulceration in rats. <i>J. Pharm. Pharmacol.</i> 42: 657-659, 1990. |
| NF-kB-Inhibitor | |
| Pesticide | |
| Spermigenic 60 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Testosteronogenic 60 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Trichomonicide | Martindale's 29th |
| Vulnerary | Martindale's 28th |

ZIRCONIUM

Plant 3.8 4.0 0.35 *